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## ORIGINAL COMMUNICATIONS.

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### FIXED SOURCES OF ALL HEMORRHAGE FROM TONSIL- LECTOMY AND ITS ABSOLUTE CONTROL.\*

DR. J. LESLIE DAVIS, Philadelphia.

Four years ago I had the pleasure of bringing before your Society a new method of tonsillar enucleation. For several years prior to that time I had been trying the various and sundry operations on tonsils, as advised in text-books, with varying and sundry results. Rarely, however, could any result be called satisfactory, the reason for which, as I eventually found, being that by no method practiced at that time could a clean and complete enucleation be uniformly procured. That complete and lasting relief from diseased tonsils could be assured only through their complete removal I had already become thoroughly convinced, and with that object in view I gradually evolved the method described to you then and demonstrated in a clinic at the Moses Taylor Hospital.

As recently, even, as that date the proposition of complete removal of the faucial tonsils had to be defended, since the almost universal practice was to cut away merely a part of the tonsil, usually only that part which might be found projecting into the oropharynx beyond the margins of the faucial pillars. The operation was technically termed tonsillotomy, though a popular expression used both by physicians and the laity, "snipping off the tonsils," clearly expressed the process.

Thus I came to you commending and demonstrating my method of enucleation under the title, "Tonsillectomy, why, when and how."

\*Read before the Lackawanna County Medical Society, Scranton, Pa., February 3, 1914, and demonstrated in a clinic at the Moses Taylor Hospital the following day.

Owing to the incomplete stage of research work that I was then carrying out in the anatomical laboratories of the Jefferson Medical College, on the circulation of the head and neck with particular reference to the tonsils, I postponed the publication of that paper till the fall of 1911, when it was read before the Section on Eye, Ear, Nose and Throat, of the Pennsylvania State Medical Society and published in the November number of the *Pennsylvania Medical Journal*, under the title, "Tonsillectomy, why, when and how: with a preliminary report of investigations concerning the blood supply and anatomic relations of the faucial tonsils."

Since that time I have continued to operate by the same method, and have been gratified to learn that some of you, after a series of several hundred cases, report the same satisfactory results that I claimed—namely, a complete, clean enucleation, with no traumatism, no destruction of or injury to any surrounding structure, leaving each faucial pillar intact, smooth-edged and with perfect symmetry of the two sides of the throat, and attended with or followed by less hemorrhage than by any other method I have known.

I believe the same to be true to-day. But there was one phase of the subject left in a stage of marked incompleteness, as I have learned through further research, so it is to correct an error in my earlier opinion and to give you the benefit of my latest conclusions that I come to you at this time. No tonsil can be enucleated by any method without the severing of certain blood vessels, and any severed vessel affords always a possible source of hemorrhage. Thus nearly every operation by any method has been attended by more bleeding than would be desired, if the operator knew a satisfactory means of control, while some bleed to the point of alarm, and more than a few deaths even have resulted therefrom. It is a lamentable fact that of all those in the medical profession who would dare do any kind of surgical operation, probably more have had the temerity to attempt operation on the faucial tonsils with less knowledge of their anatomy than upon any other part of the human body. In fact, I doubt if any other part of the human body has been subjected as frequently to bad surgery as has the faucial tonsil, or if in any other part of the body blood vessels have been severed with as careless concern and their subsequent conduct left to chance as in operations upon the tonsils. This is not a merely casual remark, but stated advisedly from twelve years of observation. I used to think that most of the cases of direful results of tonsil operations, cited by those or friends of those on whom a tonsil operation was advised, were greatly exaggerated or even en-



tirely fictitious. But after a few cases that have been brought to my attention in more recent years, my credulity has developed almost to the point of accepting the most fanciful citations as fact.

Why have so many men, who likely would shrink from attempting even the most minor surgery, been emboldened to operate upon the tonsils? Surely there must be a good reason, and my object in calling attention to this state of affairs is not to deter any one from attempting surgical work that he *is capable of doing*, but to emphasize the *importance of preparation* for the performance of an operation that has long been regarded too lightly. I believe in the conscientiousness of the average medical practitioner, and it is to those who are ever willing to improve their methods that I appeal.

Probably nearly all medical men to some extent study and observe and thereby make use of the accumulated experience of their predecessors; and likely most of us feel justified in attempting what others, under similar circumstances, have done and absolve ourselves from censure if we meet with no greater success than did they. A few, however, are not so easily contented and break away from the beaten path.

When it had been taught for years by our best-known laryngologists that to operate on the tonsils was a minor and simple procedure that hemorrhage *might* follow, but that the quantity of blood lost was not often sufficient to be *serious*, and nothing further was mentioned as a means of control, who could blame anyone who "snipped them off" and gave no further thought, unless hemorrhage did "become alarming?"

I believe that not only should all hemorrhage at the time of operation be regarded as serious till under control, but that no patient should be allowed to leave the operating room till every possible source of subsequent hemorrhage is obviated.

In my review of the literature on hemorrhage from tonsil operations I consulted over thirty text-books on the nose and throat, the authority upon which the majority of practitioners depend for instruction in preparing for an operation, or to which they appeal in an emergency. In only two did I find mentioned any particular location within the tonsillar fossa from which hemorrhage might be likely to occur; none offered any means of its control immediately following operation; while the majority did not suggest any need for attention to hemorrhage unless it should become "serious" or "alarming."

Consider the following which are taken from text-books as measures to be tried: Ice applied internally and externally; very hot applications or hot gargles; local applications of astringents or styptics, or gargling with them; pressure, either held in place by an attendant or by variously devised clamps; if bleeding points can be seen they may be seized with forceps and hemorrhage stopped by compression or torsion, or the forceps may be left in place; suturing the faucial pillars together or suturing the pillars over a pledget of gauze; sitting the patient upright in bed that when sufficient blood has been lost, syncope will lower the pressure and the hemorrhage cease; ligation of the external carotid artery.

Objection to the whole list of measures enumerated can be summarized briefly as follows: Those that may be classed under mild or conservative measures are too uncertain to rely upon where the loss of blood has assumed or is even approaching a "serious", or an "alarming" stage, to say nothing of the discomfort to which the patient is subjected in their application.

All the rest, which may be termed radical or extreme measures are in a more or less degree detrimental to the patient's constitutional condition or to the perfection of the local result.

Prior to one year ago I had considered the suturing of the faucial pillars together or over a roll of gauze the safest final resort in hemorrhage and had never failed to find that procedure effective. I cannot conceive of any situation, however, in which so extreme a measure as ligation of the carotid artery would be necessary or in any wise justified.

Those authors who state that "if bleeding points can be seen, they may be seized, etc.," have erred in the admission of the "if," for, I believe that with the *rarest* exception, *definite* sources of all hemorrhage can be localized and effectively controlled. It was the localizing of this fixed source of all severe hemorrhage that led me to abandon the pillar suturing process for the simpler and safer technic that will herein be described.

The phenomenon known as hemophilia, of course, is a too well established reality to be denied, but that the frequency of its occurrence has been greatly exaggerated there is not the shadow of a doubt, and the term "bleeder" has eased the conscience of a multitude of occasional surgeons and shielded the inability or futile efforts of the more experienced.

To a large degree the fault has existed in the erroneous opinions and teaching concerning the circulation of blood to and from the

tonsil. Before taking up, then, the means of hemorrhage control, which is the primary object of this paper, a brief consideration of the structures immediately surrounding the tonsil, the tonsillar setting, is necessary to its full appreciation.

The faucial tonsil is an irregularly spherical glandular body, about three-fourths enclosed within a membranous capsule which is glistening on its outer surface and from the inner surface of which the tonsillar tissue springs, set between the palato-glossus and palatopharyngeus muscles, with its capsular surface in contact with the aponeurosis of the superior constrictor muscle, and its exposed surface directed inwardly toward the isthmus of the fauces.

The outer, capsular surface of the tonsil, thus fitted into this muscular encompassed recess, is normally unattached to the aponeurotic wall except at the margins of the palato-glossus and palatopharyngeus muscles where the attachment is circumferential about the margin of the inner, exposed surface of the tonsil. There is no stem or stump forming a deep attachment by which the tonsil is held or through which the blood vessels pass as some seem to have believed. Hence all blood supply to the tonsil must come from without the tonsillar recess, penetrating the recess wall and then the tonsillar capsule. It is upon the source, course, and ultimate distribution of the arteries entering the tonsillar recess that anatomists have differed and surgeons have been misled.

In the preliminary stage of my research, I agreed with the anatomists, and stated in my paper three years ago that the blood supply to the tonsils seemed to "include branches from the dorsalis linguae; from the lingual; ascending palatine and tonsillar branches from the facial; a small palatine branch from the ascending pharyngeal; and a small branch from the descending palatine—the tonsillar artery carrying the principal supply.

It is perfectly true that the arterial branches enumerated reach the tissues which enter into the formation of the tonsillar fossa, but they do not all perforate the wall of that fossa nor do they all eventually reach the tonsil itself. The tonsillar branch of the facial which has generally been supposed to be the principal artery to the tonsil seems not to enter into the tonsillar circulation at all, but with an anastomotic branch from the dorsalis linguae it supplies the plica triangularis and the muscles entering into the formation of the wall of the lower half or two-thirds of the tonsillar fossa. The tonsillar branch of the ascending pharyngeal sends twigs into the upper parts of the wall of the tonsillar fossa, but

like the tonsillar artery, they *do not* pass through the muscular fibers, through the capsule and into the tonsil itself.

Thus there remain two arteries, the ascending palatine branch of the facial and the descending palatine branch of the internal maxillary from which by an anastomosis outside the fossa a single artery is formed that enters the fossa at its superior extremity, (Figure 1), passes downward between the capsule and the muscular aponeurosis for a distance of about one-half inch before penetrating the capsule to reach the tonsil, (Figure 9). Thus, my observation of four years ago that the blood vessels, both arterial and venous, penetrated the tonsillar capsule near its midpoint, superoinferiorly, and from a quarter to one-half inch from the margin of the anterior pillar was correct, but my erroneous deduction was that these vessels were derived from the severally specified sources, and that they entered by way of the anterior pillar directly into the tonsil.

Numerous, then, as are the small arterial branches surrounding the tonsillar fossa none penetrate directly through the wall and the capsule into the tonsil. One must admit always the possibility of slight variations in the positions and branches of arteries and even of anomalies, but the distribution and course of vessels as above described I believe to be present in at least 95 per cent of all cases. This estimate is based upon clinical observations and upon anatomic research in the Daniel Baugh Institute of Anatomy.

Accompanying the artery there is a vein that runs from the tonsil upward, passing out of the fossa at the point the artery enters, and joins the palatine plexus just above the fossa. A small vein also emerges from the tonsil at the same site as the other vein and runs downward between the capsule and the wall of the fossa to reach the pharyngeal plexus. Thus in the average case by the enucleation of the tonsil, one artery and two veins are the principal vessels severed, and since the venous oozing is of temporary duration, there remains but the one artery to be dealt with in the control of hemorrhage.

By my method of tonsillar enucleation this artery is usually severed by the snare at the point of its entrance into the tonsillar fossa (Figure 10), though occasionally at its point of entrance into the tonsil, one-half to three-quarters of an inch inferiorly, behind the external border of the anterior pillar.

When the latter result occurs, the remaining free portion of the artery may be left dangling within the fossa. (Figure 14). There

is no doubt that this condition has misled many in the belief that they were dealing with a "bleeder," since the various applications or attempts at pressure to what seemed to be the point of hemorrhage only served to shift the loose end of the artery to a different location—hence the conclusion that "as soon as one bleeding point was controlled another would start."

It matters not, however, where the vessel be severed, at its entrance into the fossa, at its capsular penetration, or at any intervening point, the process of hemorrhage control is the same; namely, grasp the artery at its entrance into the superior extremity of the fossa, pass a suture ligature of No. 1 catgut underneath it and tie. (Figure 11). By retracting the superior margin of the anterior pillar this artery can be demonstrated following the enucleation of every tonsil. At the site of its entrance into the fossa there is a slight, stump-like projection of connective tissue, (Figure 10) through which the artery and vein pass, which renders the cut end of the artery quite accessible to the grasp of the hemostat. (Figure 11.) The retraction of the pillar, and the grasping of the artery must be done with care to avoid injury to or laceration of the wall of the fossa, since the muscles forming the wall are exceedingly thin and of delicate fibers. Laceration of the wall may be attended by more or less hemorrhage from the small arterial branches supplying the surrounding muscles. (Figure 1). A seeming exception to the above stated arterial distribution is occasionally seen when the artery is severed near its tonsillar entrance and remains adherent to the wall of the fossa instead of dangling as previously cited. In such cases the bleeding is seen to flow near the center of the fossa wall.

Occasionally a bleeding vessel may be found to persist in or near the base of the fossa, being one of the small terminal branches of the tonsillar or dorsalis linguae arteries that has penetrated the wall or the plica into the fossa. If so, it should be grasped and ligated the same as the other and more important artery. I have found it necessary to do this in about two per cent of cases. Regarding the artery in the superior extremity, it is my custom now to ligate it immediately following the removal of every adult tonsil, whether there be profuse bleeding or not. In children they are ligated if the bleeding does not cease entirely within a few minutes. In other words every patient must leave the operating room with perfectly dry tonsillar fossae.

When through extra-capsular infections, particularly peritonsillar abscesses, the capsule has become adherent to the fossa wall

at any point, the freeing of such adhesions in the enucleation process usually leaves a rough, abraded muscular area from which there may result considerable capillary oozing, or even a freely bleeding small artery which has penetrated the muscular wall from without. If the resulting hemorrhage be an oozing from the roughened surface, an application of ten per cent nitrate of silver will control it; should there be a distinct vessel, however, then a suture ligature should be used as in the other instances.

I have never had to use more than two ligatures in any tonsillar fossa, and I have never had any bleeding subsequent to the patient's leaving the operating room since I have adopted this method of control. Thus the simplicity of its application, the security of its control of hemorrhage, the absence of any interference with function of the pillars, either immediate or ultimate, and the absolute freedom from discomfort to the patient I feel should justify my full commendation of the method herein described.

The application of this technic is intended to follow only the complete enucleation of tonsils and since I still believe my own operation for tonsillectomy to be the most satisfactory one yet devised, I have had the artist, Miss Peters, make a series of drawings which, with the legend beneath each figure, will more clearly elucidate each step of the process than my verbal description as published some years ago.

The following drawings which are intended to illustrate each successive stage of the technic were sketched from the actual operation, but not all from the same patient.

Ether anesthesia is preferred in all cases; a straight operating table is used, the patient lying flat upon the back with head turned at an angle of forty-five degrees to the right, assistant on left, sponge nurse back of operator, light reflected with head mirror.

1700 Walnut Street.



DAVIS: CONTROL OF HEMORRHAGE IN TONSILLECTOMY.

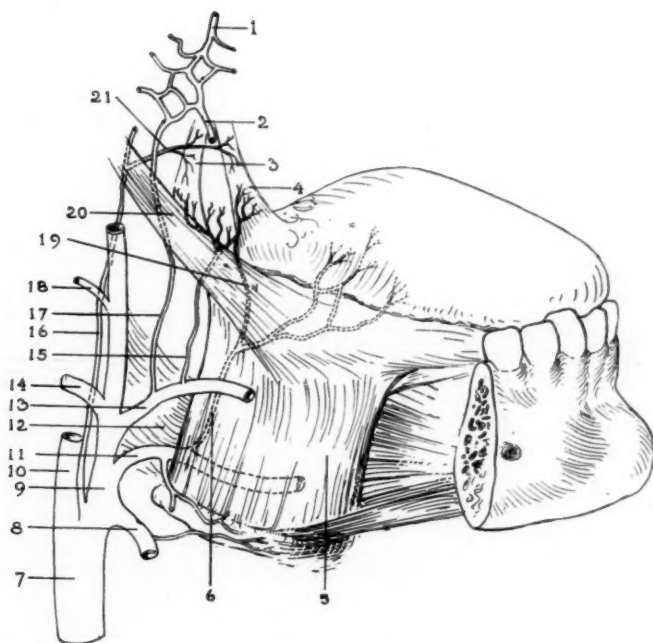
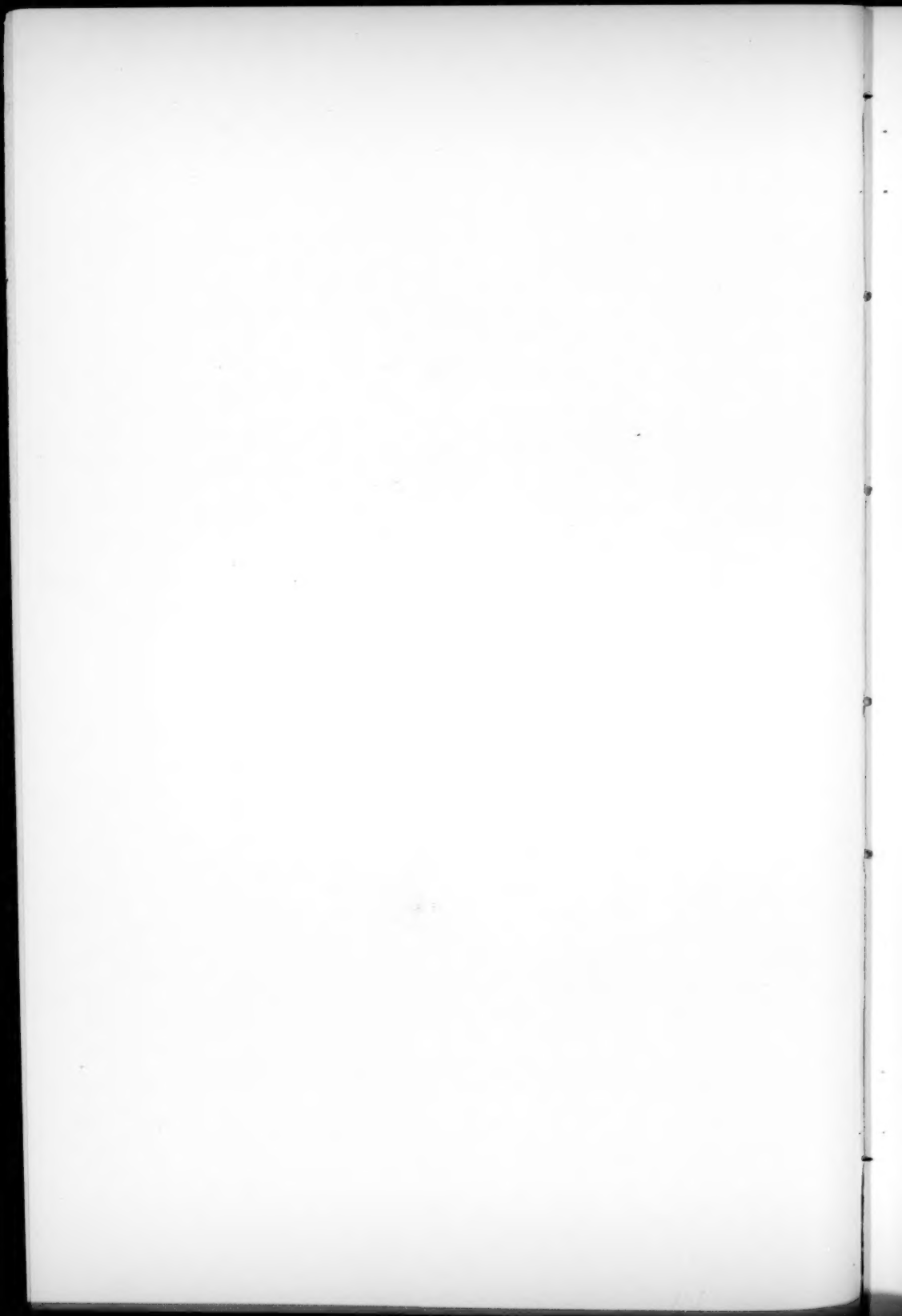


Figure 1. Diagram showing the blood supply to the tonsil and the surrounding structures. 1. Descending palatine branch of internal maxillary a. 2. True tonsillar a.—formed by an anastomosis of descending palatine and ascending palatine branches. 3. Palato-pharyngeus m. (Posterior tonsillar pillar.) 4. Palato-glossus m. (Anterior tonsillar pillar.) 5. Hyoglossus m. 6. Dorsalis linguae a. 7. Common carotid a. 8. Superior thyroid a. 9. External carotid a. 10. Internal carotid a. 11. Lingual a. 12. Middle constrictor m. 13. Facial a. 14. Occipital a. 15. So-called tonsillar a. 16. Ascending pharyngeal a. 17. Ascending palatine a. 18. Posterior auricular a. 19. Tonsillar branch of dorsalis linguae a. 20. Styloglossus m. 21. Tonsillar branch of ascending pharyngeal a.



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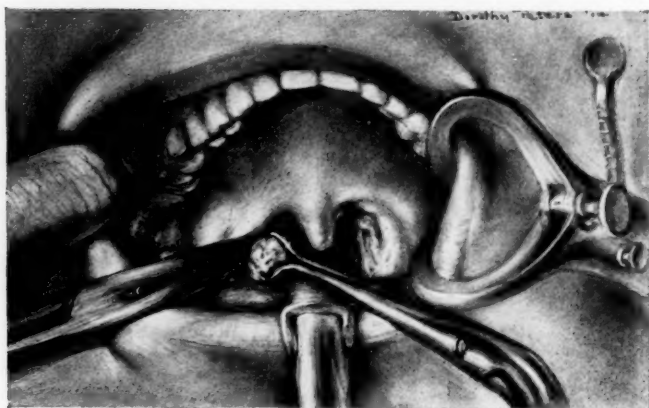


Figure 2. Anesthetizer's finger retracting cheek. Scissors, closed, held in operator's left hand, used merely as a retractor drawing forward the anterior pillar to enable the submerged tonsil to be grasped by tenaculum in operator's right hand without catching any part of the pillar. Tongue depressor is held by assistant.

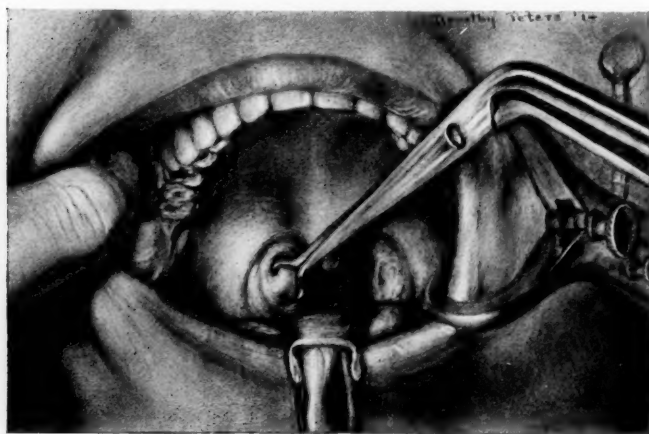
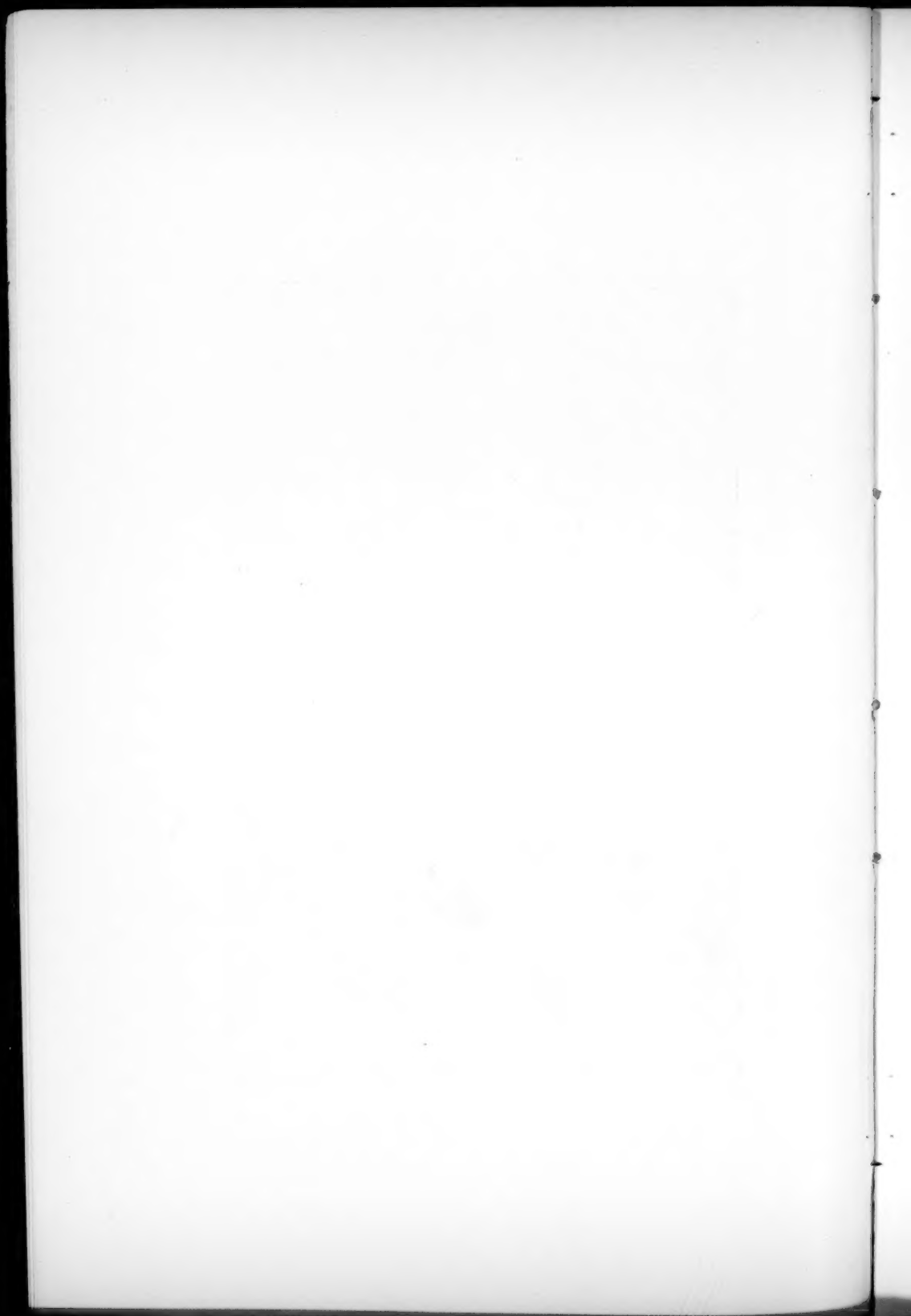


Figure 3. Showing imprint of the body of the tonsil contained within the fossa back of the anterior pillar. The plica triangularis is seen extending inward from the margin of the pillar over a portion of the free surface of the tonsil.



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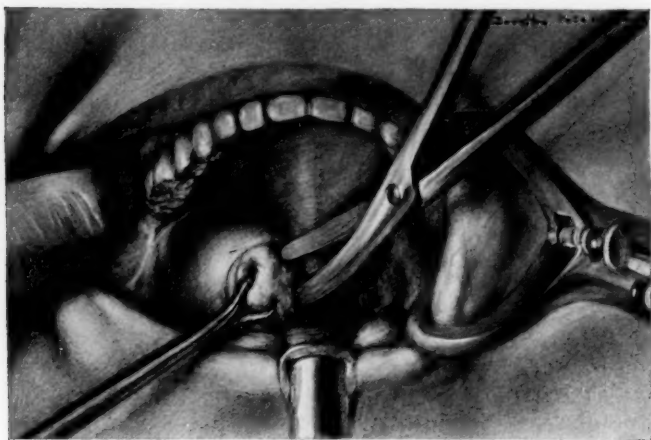


Figure 4. Cutting with scissors into tonsil, anterior to margin of posterior pillar, the tonsil being drawn forward and outward with tenaculum.

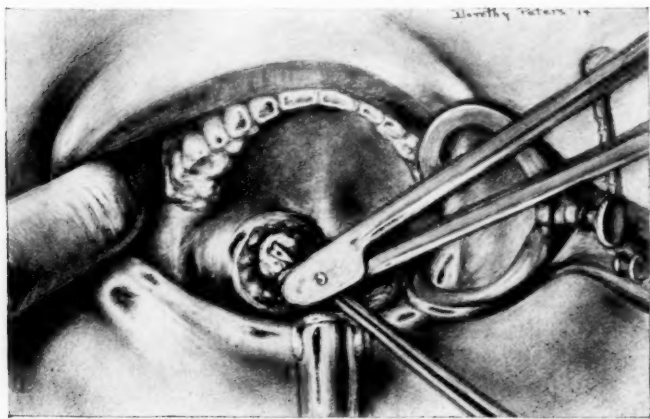
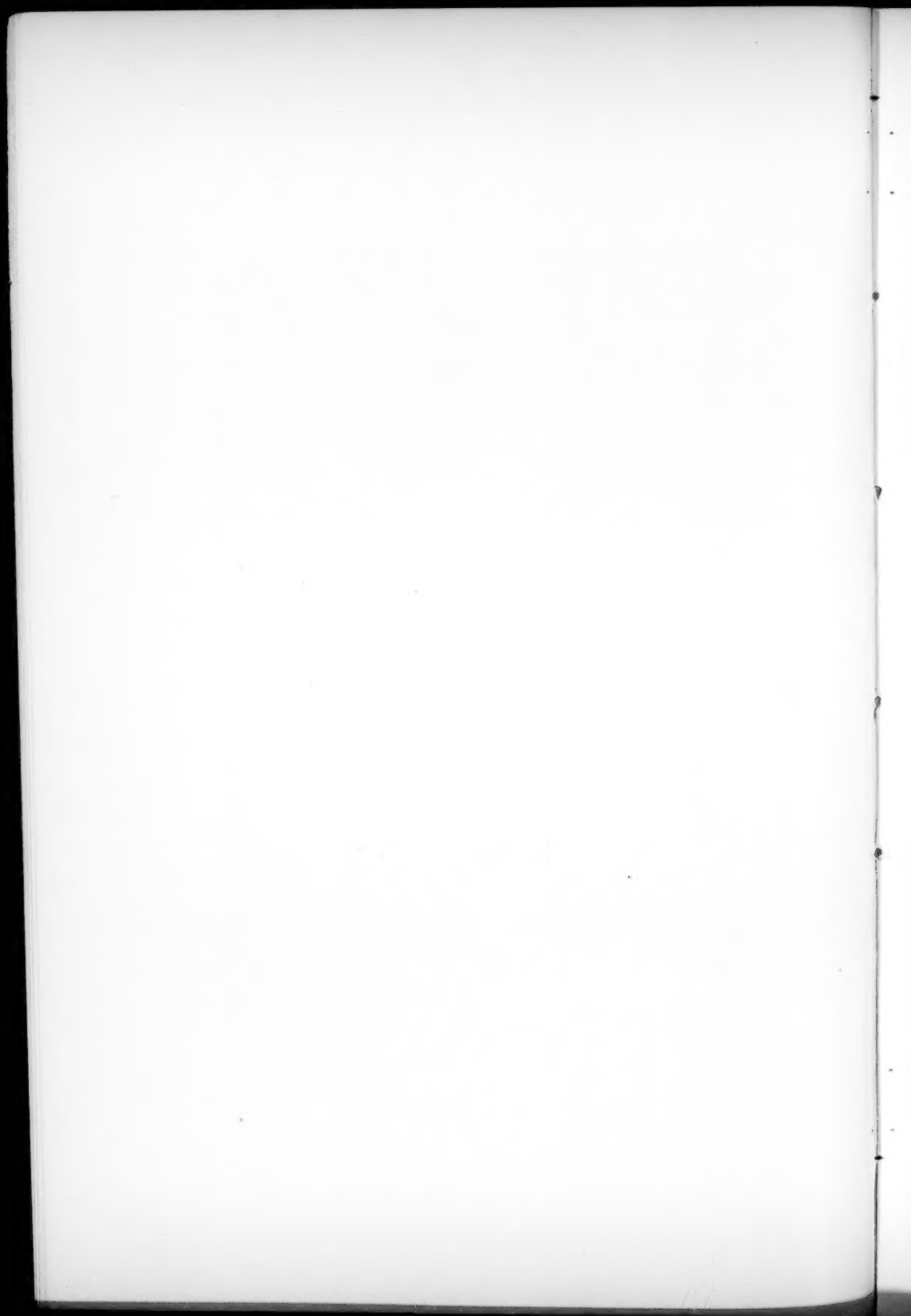


Figure 5. Tonsil drawn by tenaculum towards opposite side—while anterior incision is made into tonsillar tissue posterior to margin of anterior pillar. These two incisions, about one-quarter of an inch deep are made so that they unite in the upper part of the tonsil above the tenaculum. The object of these incisions is to permit the tonsil contained within the capsule to split when traction is made with the second tenaculum (Figure 6) and thus result in complete eversion of the tonsil. Note that each incision is made into the tonsillar tissue near the margins of the pillars but not attempting to separate the tonsil or capsular attachment from the pillars.





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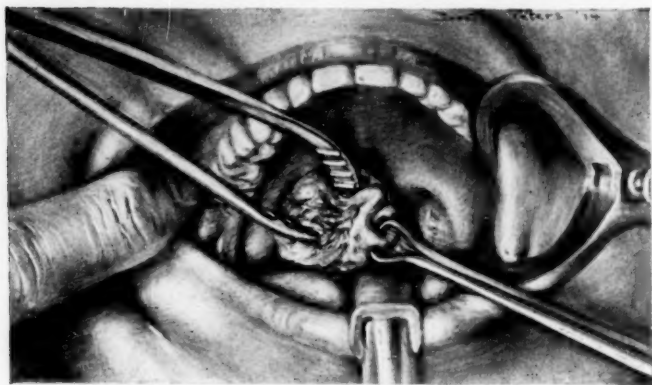


Figure 6. Showing the second tenaculum being applied, grasping the tonsil within the anterior incision made with scissors. The first tenaculum is then removed and by traction with the remaining tenaculum the eversion process is completed. The grasp is made within the anterior incision because the greater part of a submerged tonsil is always imbedded back of the anterior pillar. For this reason it will be seen when the tonsil is removed that the anterior incision was practically through the middle of the tonsil, from which point traction with the second tenaculum more easily and evenly accomplishes the eversion.

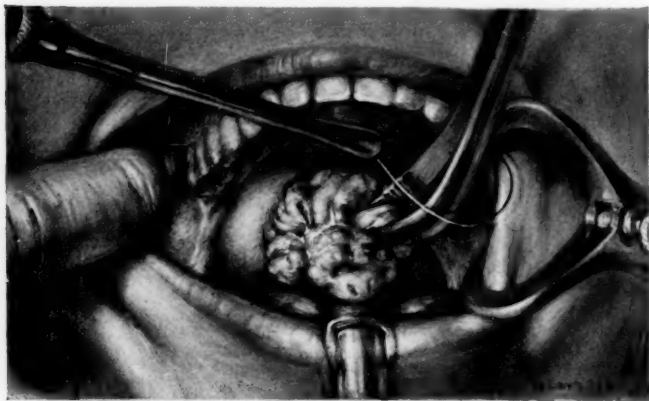
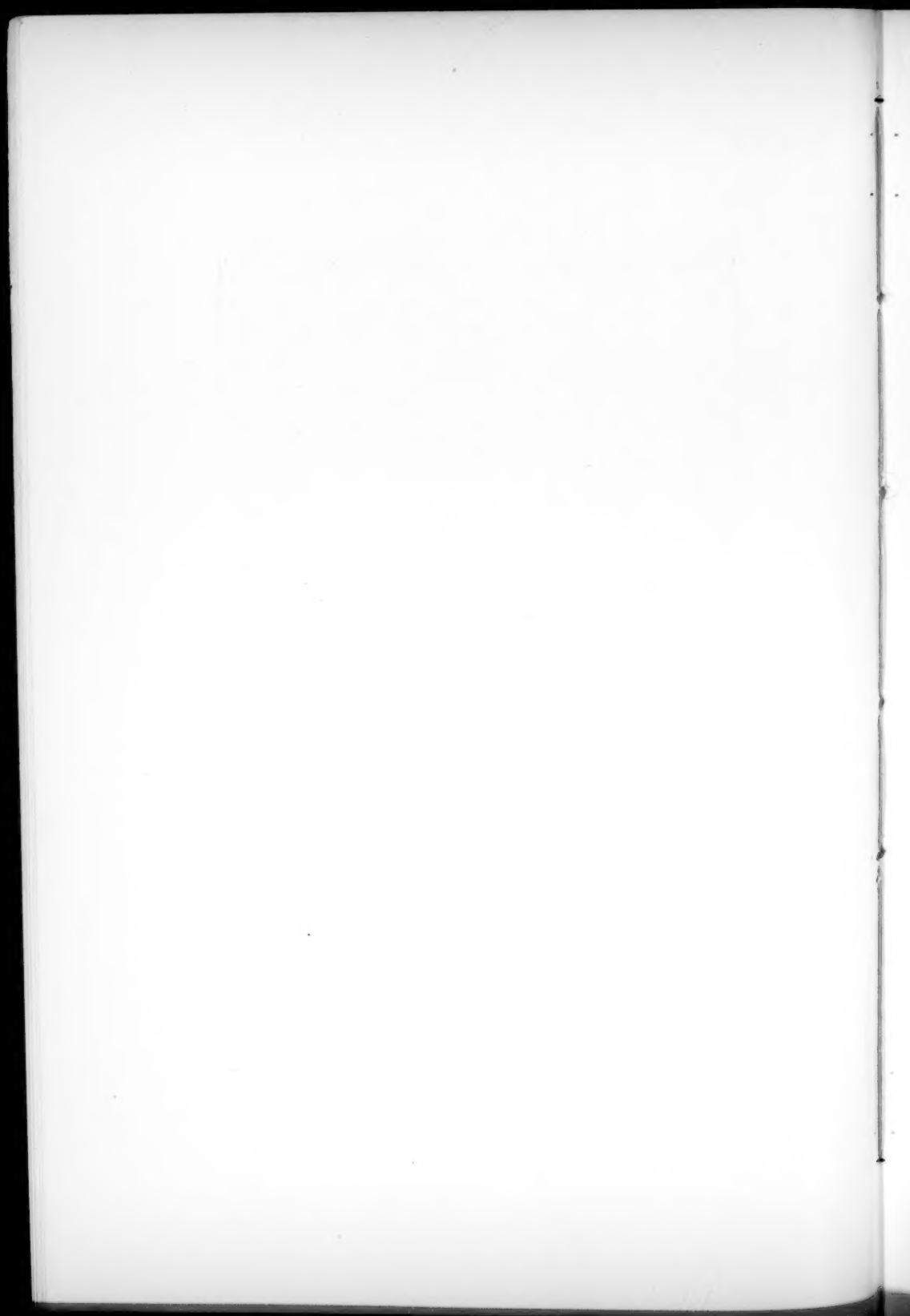


Figure 7. The tonsil perfectly everted. Note from the position of tenaculum how much tonsillar tissue was turned out from behind the anterior pillar. In this stage the whole capsular surface which fitted convexly into the concave fossa is entirely without the fossa, completely everted and held simply by the marginal, circumferential attachment to the anterior and posterior pillars, around which line the snare is then placed.



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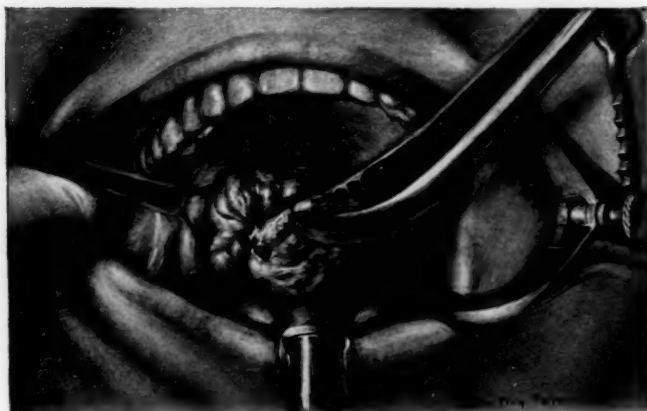


Figure 8. Snare placed back of all out-turned tonsillar tissue and drawn against the capsular attachment to the pillars. As the screw is run down by the assistant the operator, holding to the shaft of the snare with one hand and tenaculum with the other, directs the gradually reduced loop of wire in the proper line of severance.

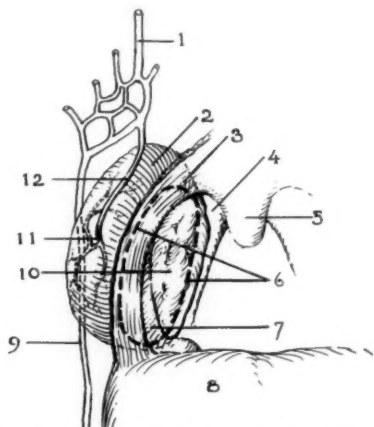
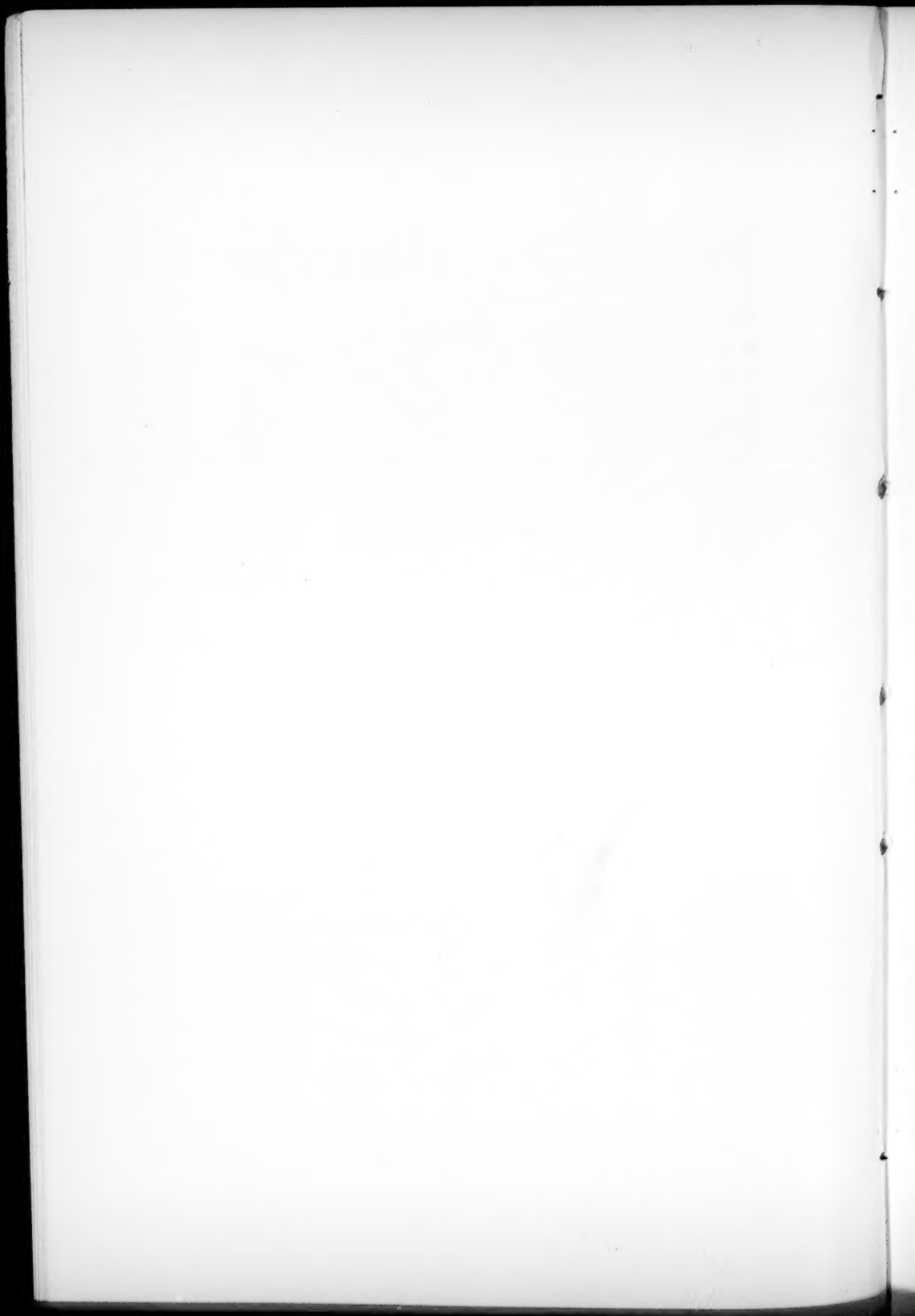


Figure 9. Diagram showing line of capsular attachment to faucial pillars, and location of arterial penetration of capsule. 1. Descending palatine branch of internal max. a. 2. Capsular surface of tonsil. 3. Anterior faucial pillar. 4. Posterior faucial pillar. 5. Uvula. 6. Line of capsular attachment to faucial pillars. This also marks the line of capsule severed by the snare after the tonsil has been everted. 7. Margin of plica triangularis. 8. Base of tongue. 9. Ascending palatine branch of facia a. 10. Faucial or exposed surface of tonsil. 11. Entrance of true tonsillar a. into tonsil, showing also irregular distribution of arterial branches within the capsule. This point of entrance is occasionally slightly more posterior, though all variations could probably be covered by a radius of one-sixth inch. 12. True tonsillar a. and its course from entrance into fossa to its entrance into the tonsil, running between the capsule and aponeurosis of the muscular wall. Occasionally the superior portion of its course is more posterolateral to the tonsil, though eventually entering the tonsil near the same point as here specified.



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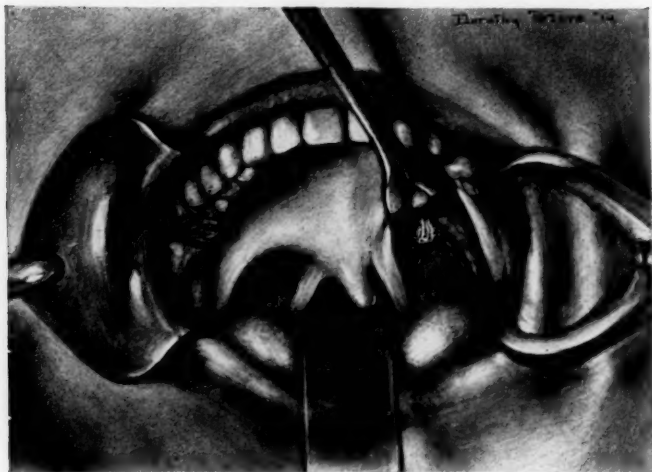


Figure 10. The right fossa shows the position of faucial pillars immediately after the enucleation has been completed. Each pillar margin is left smooth and perfectly intact. On the left side the anterior pillar is retracted superiorly to expose the point at which the true tonsillar artery enters the fossa and the vein passes out. These severed vessels with surrounding connective tissue leave a small projecting stump which facilitates the grasping of the artery with the hemostat. Radiating downward from this stump can be seen two or three small vessels running beneath the muscular aponeurosis. These are veins that permeate and at times penetrate the superior constrictor muscle wall from without, running upward to join the palatine plexus.

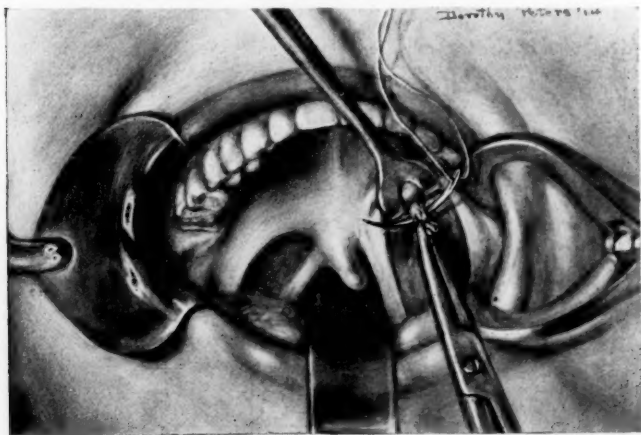
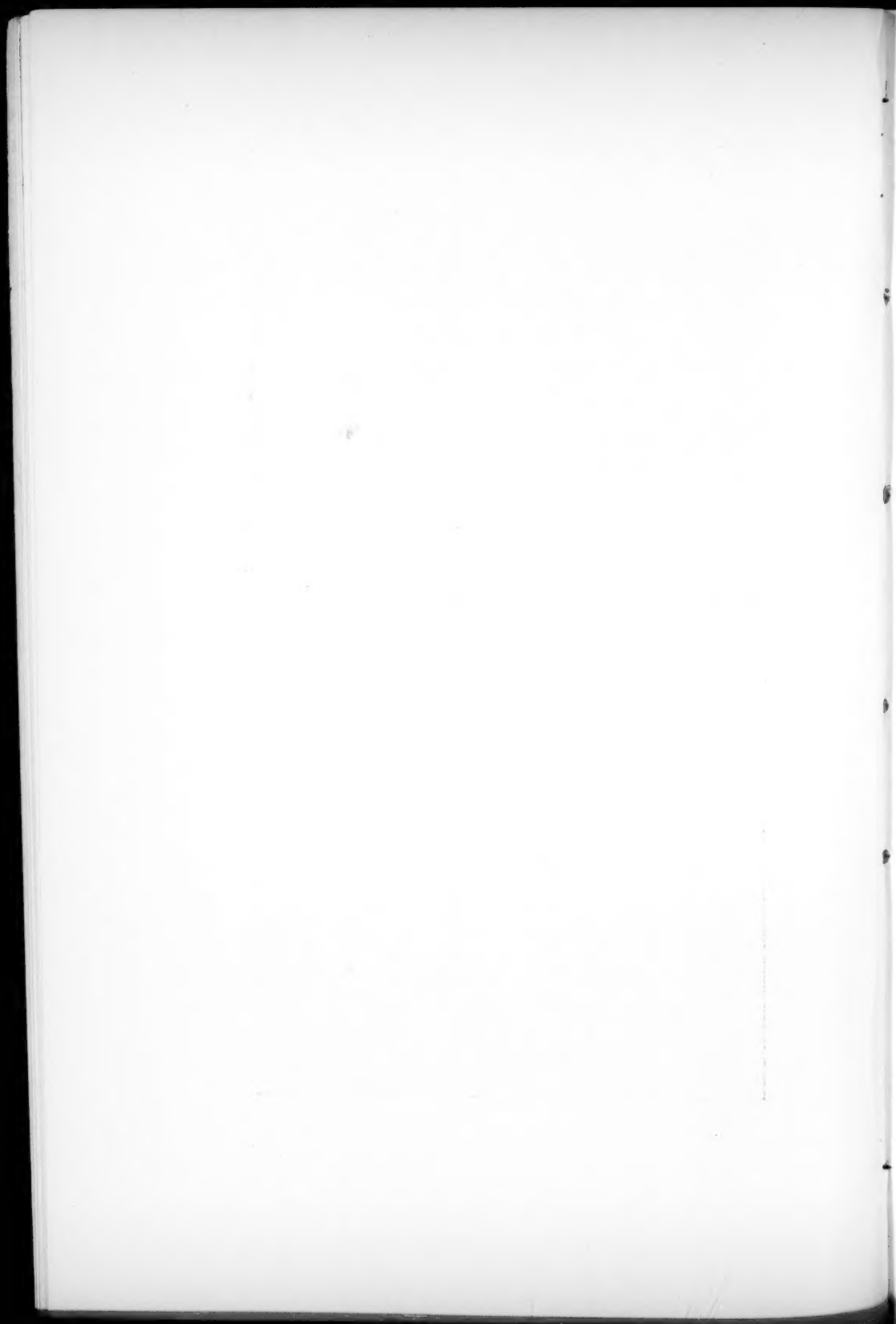


Figure 11. Showing how the stump is grasped with hemostat and the introduction of the suture ligature with short slightly curved needle. The needle penetrates the tissues on the floor of the fossa at just sufficient depth to hold the catgut in place while it is being tied above the artery. Immediately following the enucleation of the tonsil I usually hold a gauze sponge pressed firmly within the fossa for about a minute to check the first flow of blood before the hemostat is applied.





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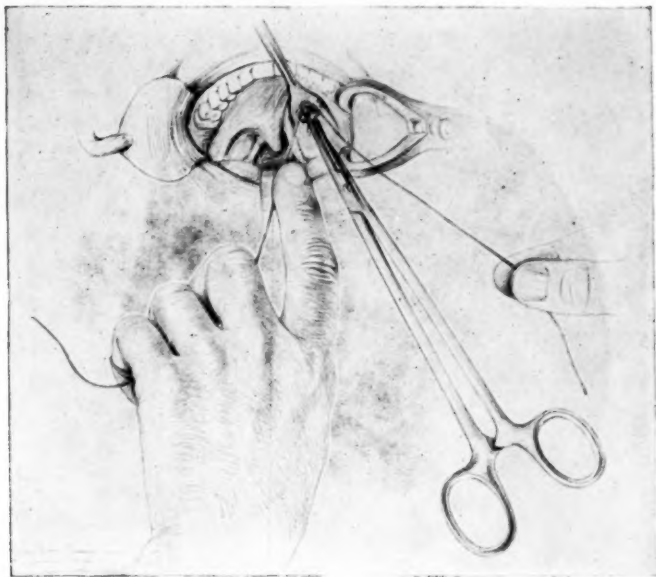


Figure 12. Showing manner of holding the ligature ends for tying. The right hand end of the ligature is held well outside of the mouth, thus giving a clear view of the field of operation, while the other end is held secure by being wound around the little or ring finger of the left hand, leaving the index finger free to press downward upon the knot as it is drawn upon the vessels. Two knots are sufficient for security.

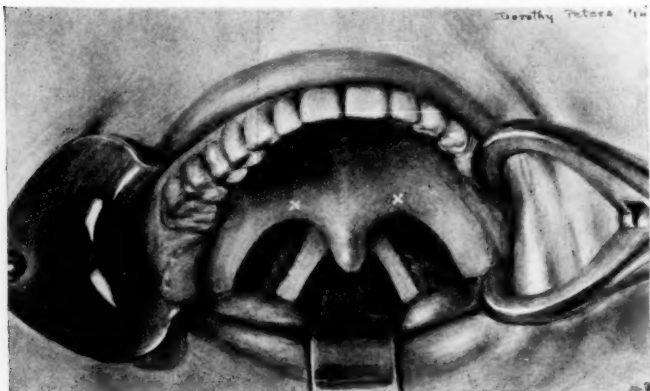
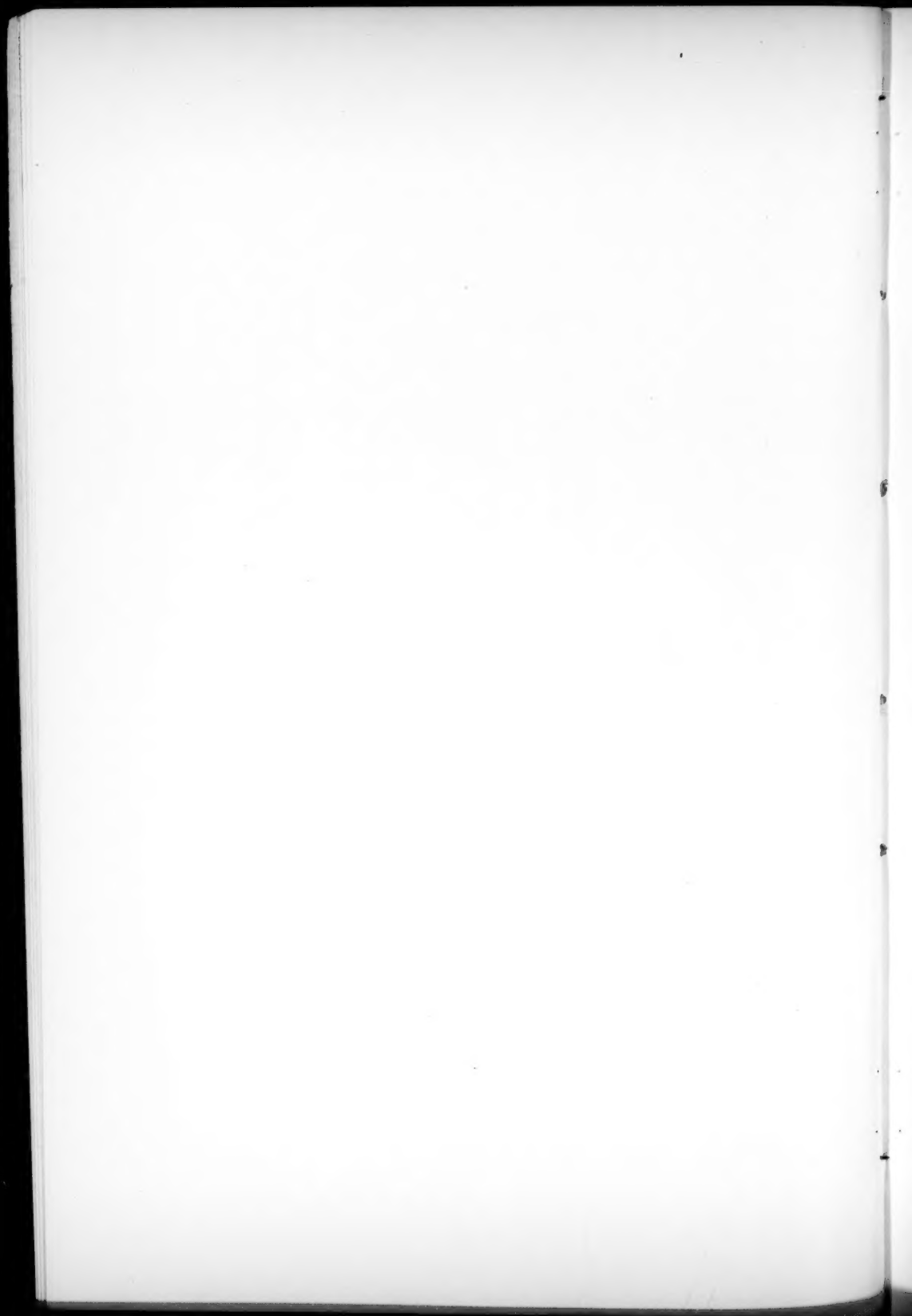


Figure 13. After the process of suture-ligation is completed the two sides of the throat should look like the above view. The cross marks indicate the location of the ligatures within the superior extremities of the fossae, being entirely hidden from view by the anterior pillar after the retractor is removed.



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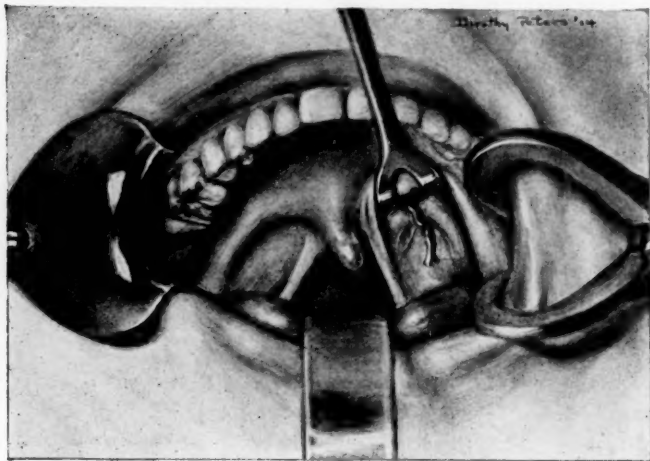


Figure 14, showing the occasional occurrence referred to where the artery was severed at or near its entrance into the tonsil, leaving the remaining portion detached from the wall and dangling loosely from its superior point of entrance into the fossa. This condition has no doubt perplexed many operators from the fact that while it is bleeding and the fossa is filled or covered with blood the artery itself cannot easily be seen, giving the appearance of multiple points of hemorrhage as its position is shifted in attempts to apply astringents or pressure, etc., according to the older methods. By the suture-ligature method, simply retract the pillar and grasp with hemostat in the usual way at its upper entrance into the fossa and introduce suture-ligature as shown in Figure 11.

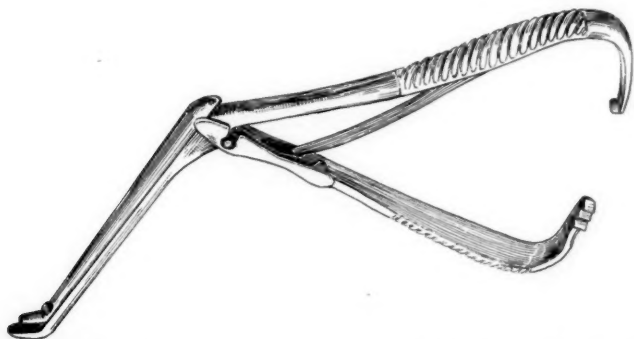
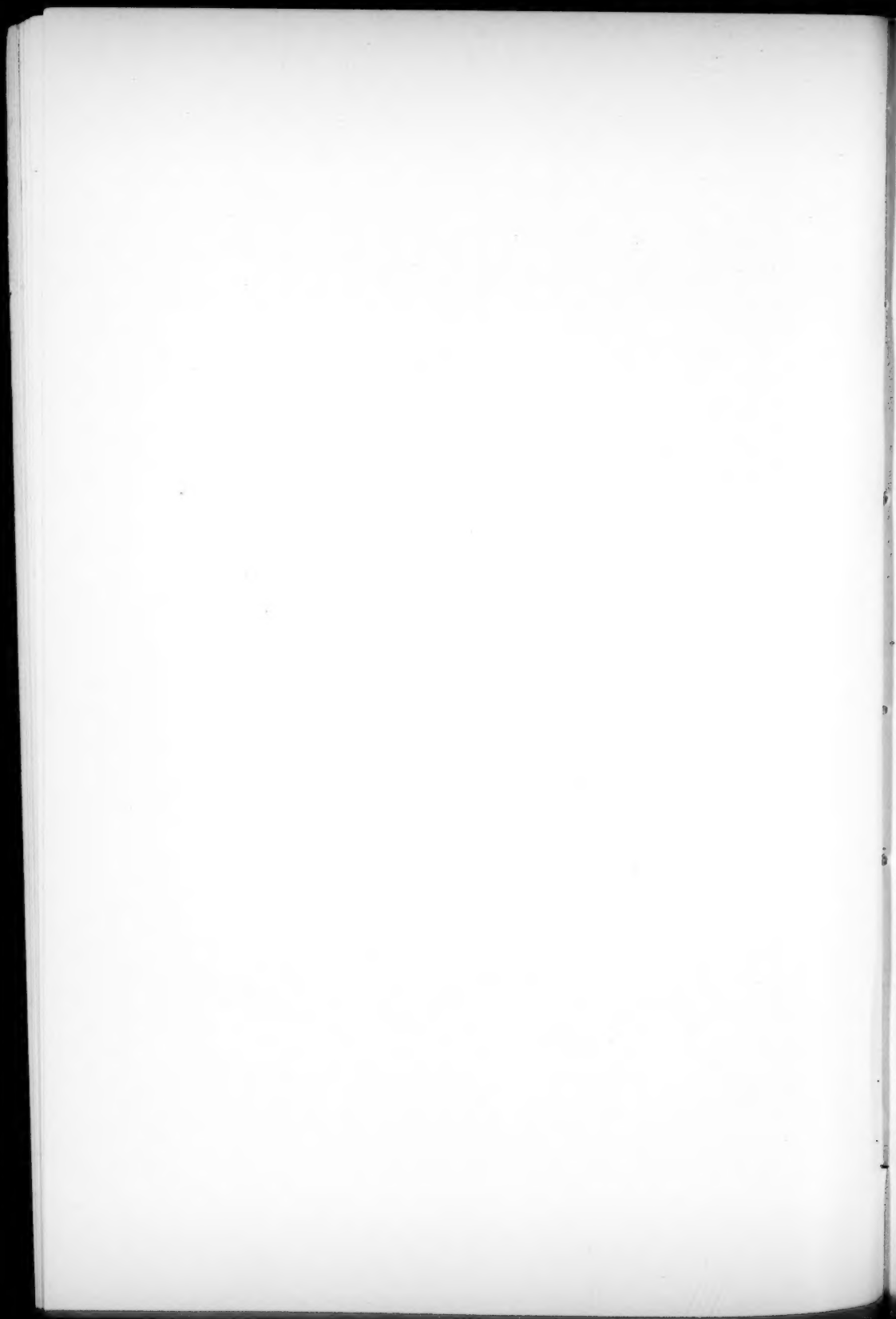


Figure 15. Needle-holder designed to facilitate the introduction of the ligature-carrying needle. The angle at which the needle has to be introduced and drawn through rendered the process very awkward and difficult with the various styles of straight holders.



## **SOME GATEWAYS OF CRYPTOGENIC INFECTION.**

### **THE AVEOLAR PROCESSES.\***

DR. WM. H. HASKIN, New York City.

The great importance of the tonsils and adenoids as a source of sepsis has been recognized by all, but there are many other conditions to be found in the mouth that may have an important influence upon far distant points of the body. In 1908, the writer reported a few cases of such oral diseases that are very common, hoping to emphasize the importance of early recognition of these conditions. In looking over the Transactions of the Triological Society of the past fifteen years it appears that no paper on this subject has ever been read before that society on this subject, although such men as Osler, J. B. Murphy, Hunter, Knopf, Rhein, Collins, Ebersole and many others have written about the dangers of oral sepsis and many of the foremost dentists are sending out valuable articles which have been most instructive to the writer.

It is safe to say that the x-ray has done more to demonstrate pathological conditions in the jaws than any other measure, and no professional man should fail to make use of the radiograph picture in order to detect pus cavities, caries, alveolar atrophies, improper fillings in root canals,—and even the ordinary fillings themselves,—pulp-stones, odontomas, unerupted teeth, roots remaining after extraction, bone cysts, and many other obscure conditions. As a matter of fact, there is no excuse for the existence of septic and often suppurating conditions in the mouth, which serve to contaminate all food and drink and from toxins which enter the system directly. The old theory that all bacteria are killed by the acid of the gastric secretion becomes clearly absurd when we realize that this acid is only found during the active period of digestion of solid foods. It requires some time for the stomach to provide enough of this free acid to have any effect on the bacteria which have in the meantime escaped into the smaller intestine with its alkaline secretions. Every mouthful of fluid, even the saliva, is contaminated, and these bacteria are not even subjected to any possible effect of the acid, as its secretion is not stimulated except by solid food.

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\*Read before the Eastern Section of the American Laryngological, Rhinological and Otological Society, New York City, January 17, 1914.

Unfortunately, owing to the absence of pain and the fact that the septic secretions are poured into a cavity that is already moist, the majority of patients do not recognize their condition and are greatly surprised when it is explained to them. Statistics show that over 98 per cent of all school-children have caries of the teeth—which means that they cannot masticate properly, and in consequence there is a lack of proper development of the jaws and a constant absorption of almost every known form of bacteria. Many have fistulous tracts in the alveolar processes with glandular swellings in the neck due to direct absorption. On the other hand, the premature extraction of decayed teeth is bound to affect the normal development of the jaws and the face.



Figure 1 shows destruction of alveolus over second bicuspid and second molar probably caused by apical abscesses.

A great deal is being done by the dentists and by all those interested in the prevention of disease, to stir up the entire population to an intelligent understanding of the necessity of caring for the teeth, and in some communities the results have already been more than gratifying. Immense sums of money are wasted in our school-systems because of the class of so-called "repeaters," or children who fail to progress, and it has been proved beyond doubt that many of these children are not actually stupid but are suffering from malnutrition and septic absorption resulting from diseased teeth and gums, and that when these conditions have been relieved the children progress as rapidly as others. Germany has thoroughly recognized this fact and has made great strides in the hygienic care and instruction of her children, realizing the immense monetary value resulting from their improved health and development.

In January, 1911, Dr. Wm. Hunter, of London, published an article in the *Lancet*, which aroused the dental profession, and it is



well worth careful reading by our own profession. He shows that these septic oral conditions play an important part in the etiology of a great number of diseases. Besides the glandular swellings of the neck, and gastric and intestinal disturbances, he claims to have found many systemic septic cases, such as ulcerative endocarditis, pleurisy, osteomyelitis, rheumatic joints, nephritis, pyemias, anemias, skin diseases, and even mental diseases. Osler says: "There is not one single thing more important to the public in the whole range of hygiene than the hygiene of the mouth." Dr. Knopf has written extensively on the influence of diseased teeth upon tuber-



Figure 2 shows typical destruction of bone in apical abscess. Apex of root projecting into cavity.

culosis, and shows the possibility of its being one of the chief causes of infection. He also says that it is almost impossible to cure tuberculosis patients who have no teeth or have bad ones. He says: "To put it briefly, I would say that bad teeth, or the loss of teeth during childhood, its concomitant discomfort, depression of spirit and lack of appetite, produce that physiological poverty which renders the delicate system of the child not only more prone to tuberculosis and to the invasion of the germs of serious acute contagious diseases, etc., but also more susceptible to nervous affections, such as melancholia, hysteria, chorea, and St. Vitus' dance." Rosenow

has proved that gastric ulcer is caused by streptococcic infection, and that the bacteria are frequently derived from blind alveolar abscesses. He has also proved the same source of infection to have caused endocarditis and other diseases.

With this brief review of some of the many diseases which are at least partly caused by oral sepsis, let us consider the most frequent sources of these infections. They are four in number, and are all readily recognized, if sought for, so there should be no excuse for neglecting them: (1) Dental caries; (2) alveolar caries; (3)



Figure 3: (a) Dark area over second bicuspid shows chronic apical abscess. Note incompleteness of root filling. Also note irregular curves of roots of second molar. (b) Acute apical abscess shown by dark area. Fine wire extends through a false opening in root. (c) Shows loss of alveolus around central and lateral incisors and poor root fillings. Advanced pyorrhea of these teeth.

pyorrhea alveolaris; (4) bad crown and bridge work, bad fillings and impactions.

Dental caries is to be found in practically every human mouth, and comes particularly under the care of the dentist. We could do much to lessen this destruction of the teeth if we would impress upon every patient that every cavity is a septic danger-spot which may lead to serious consequences and great suffering. Alveolar caries is almost invariably caused by disease of the tooth pulp, which becomes infected whenever the dental caries extends deep enough to expose the pulp cavity, or it may be caused by trauma-

tism. It is much more common than is generally supposed and should always be looked for in every patient who has given a history of having had a gum boil or an ulcerated tooth. The fistulous tract may have a most minute opening above the apex of a tooth, or it may be found extending up along the root itself, and will only be revealed by the presence of a drop of pus on pressure. A probe introduced through these minute openings often passes into a really extensive cavity in which roughened carious bone can be felt. Another very suspicious sign is a peculiar bluish color of the al-



Figure 4 shows carious disintegration of whole alveolar process resulting from pyorrhea.

veolar process over any of the teeth, such as is so often found over old carious bone-tracts in other parts of the body. The dental profession has at last been awakened to the ravages of this often painless, insidious disease because of the evidence which can always be obtained by the radiograph, and many patients are being saved much actual suffering and long periods of septic absorption because of the positive diagnosis which can now be made in many doubtful cases. Some claim that blind abscesses often exist with no opening and that these are the most dangerous. It is our duty to have radiographs taken whenever our patients' dentists have failed to

do so, and we should be able to interpret the picture thus obtained. The chief cause of long-continued alveolar abscess lies in the failure to completely fill the emptied root canal, and, as a rule, this latter condition can be easily recognized in an x-ray picture by any one familiar with the tooth structure. It is almost certain that all good dentists will resort to this means of diagnosis whenever they are in doubt, but there are still many who do not, and when one examines the radiographs carefully it becomes plainly evident why they do not wish to know too much.

Pyorrhea alveolaris—i. e., Rigg's disease—is a suppurative pericementitis and an interstitial alveolitis. As a matter of fact, the bone of the alveolar process is very poorly nourished and readily



Figure 5 shows wire passing through a perforation of the hard palate caused by an apical abscess. Also shows advanced pyorrhea, the lingual root of the second molar being entirely free from the alveolus.

breaks down as the result of infection, it being only a temporary structure placed on the maxillary bones to hold the teeth. It is not present in the new-born child, and it disappears entirely after extraction of all the teeth. Pyorrhea is always the result of failure to clean the teeth properly. Mucous plaques deposit around the necks of the teeth, and the calcium salts deposit in these plaques, forming tartar. These deposits gradually set up a gingivitis which slowly advances up the roots of the teeth, separating the pericementum or dental ligament from the tooth and allowing the tartar deposits to extend even to the apices. As the disease progresses, the bone of the alveolar process is destroyed (see Figure 4), the gums recede from the necks of the teeth (see Figures 5-9) and they be-

come loose and eventually fall out. There is a constant flow of septic pus from each diseased socket. The breath is generally very foul but, strange to say, this is not often appreciated by the patient. There is little, if any, pain, but the gums become very tender and swollen, and as they bleed very easily the cleansing which is so urgently needed is more and more neglected. Although it is both an offensive and a dangerous disease, because of its tendency to produce other infections, it is nevertheless found in countless numbers—the rich as well as the poor. It does not matter whether we



Figure 6 shows carious pocket around roots of molars and also left lateral. Also shows shrinkage of alveolar margin from the teeth and calcareous deposits on the roots of the second molar.

say that is caused by systemic disturbances, improper food, defective mastication, bacteria, by misplaced teeth, or by purely local conditions. Undoubtedly, each plays a part in causing the disease, but it is enough for us to know that the disease can be arrested and all suppuration be stopped, if taken in time.

Vaccine treatment has been advocated by many, and all kinds of diet have had their advocates, but it is well to realize that no case of pyorrhea has ever been actually cured until each and every infected tooth has been scaled and polished, and then kept so. Unfortunately, even in these times and in spite of the brilliant work

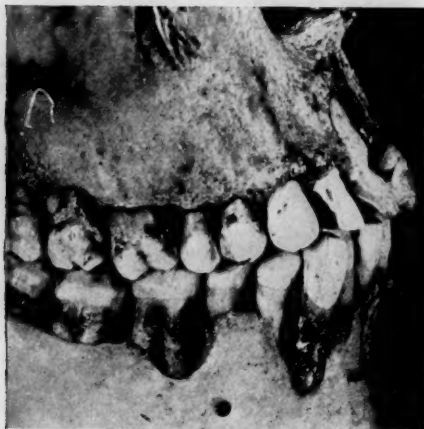


Figure 7. Note destruction of both upper and lower alveoli and the calcareous deposits on the exposed teeth roots.



Figure 8: Moderately advanced pyorrhea.



Figure 9: Advanced pyorrhea: Each socket continually discharges pus and countless bacteria.

which is being accomplished by many eminent dentists, there are thousands of dentists who absolutely neglect this dangerous disease, and even tell their patients that it is incurable—either because of ignorance or because of laziness. When diagnosed early it is very easy to control, and intelligent co-operation on the part of the patient as to diet, exercise, and proper cleansing of the teeth should prevent loss of teeth, and also many ill-effects which are bound to follow both the sepsis and the defective mastication resulting from

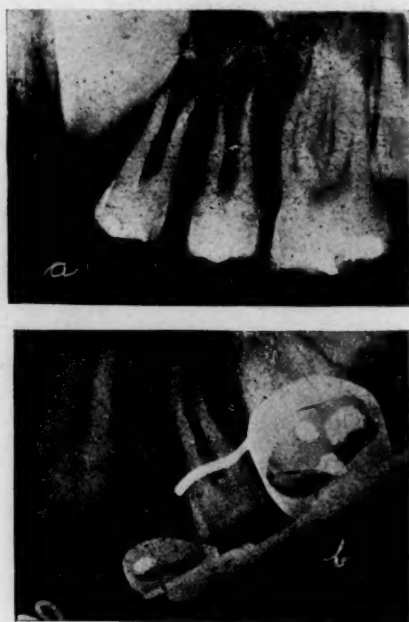


Figure 10 (a) shows impaction of canine. Note the open root canals of two bicusps which have not completely developed. (b) shows appliance which has opened space between lateral incisor and bicuspid and allowed canine to descend rapidly.

the diseased alveolar processes and the loss of teeth. It is now well known that many obscure diseases have been cured by the removal of diseased tonsils after other measures had failed. The same cures result in thousands of cases after the teeth and jaws have been put in a healthy condition, and the medical profession should recognize this fact and be the first to diagnose such conditions.

The slides presented show the actual destruction which takes place in the alveolus as a result of apical processes or gum boils,



and also the shrinkage or atrophy which results from pyorrhea.

It is not the purpose of this paper to go into detail as to causes, effects, or methods of treatment, but the writer earnestly hopes that the importance of these conditions be recognized by the medical men, for by doing our share we can materially help in the great work which is being done by the dental profession and by all those who are working along the lines of preventive medicine.

The grave dangers which arise from bad and unscientific crown and bridge-work are many, and should receive more attention. With much of this work it is absolutely impossible for the patient to cleanse his mouth, and food is bound to accumulate and decompose in the interstices and under the edges of the improperly fitted crowns. Every dentist of repute would be thankful to have the members of our profession join with them in their efforts to stop



Figure 11. (a) Note very bad fillings. (b) Note badly fitted crown on bicuspid and pyorrhea involving canine.

such work, realizing that it is bound to injure the best interests of their profession, and also because it leads to so much suffering and disease from the septic absorption. We all know the discomforts of food impacted between the teeth but do not stop to think that if the teeth were in proper contact this would not take place; nor do many realize the damage that is done by the presence of this impacted food and its decomposition.

If old cases are examined carefully the gums will be found badly receded, and the x-ray will show that bone-absorption of the alveolus actually takes place, much the same as occurs in pyorrhea. Impacted teeth that were never suspected, are being recognized very frequently now, and many very distressing nervous diseases are being relieved by remedying these impactions, either by operation or by orthodontic measures. The writer desires to extend thanks to Dr. U. F. Spies, for several of the illustrations which have been copyrighted.

40 East Forty-first Street.



**A CASE OF COMPLETE BILATERAL BONY OCCLUSION OF  
BOTH NASAL CHOANAE.\***

DR. ADOLPH O. PFINGST, Louisville, Ky.

On December 4, 1905, Miss M. B., telephone operator, aged 24, was referred to me by Dr. J. Hunn of Junction City, Kentucky. The following history was elicited. As long as she could remember the patient has been unable to breathe through her nose and has been unable to blow her nose, but by pressure against the alae, she could remove viscid fluid from the nasal passages. Her sense of smell, since she has been able to compare it to the perception of others, has not been well developed. Her hearing has apparently always been normal. Up to about two years ago her general health was splendid, but in the last two years she has had, almost daily, a dull headache in the frontal region.

Examination revealed nothing abnormal in her general condition. There was nothing unusual about her facial expression—except the open mouth. Both of the nasal passages contained considerable mucus which she could not expell as she was unable to blow air through the passages. The mucus was removed by suction by means of the saliva ejector of a fountain spittoon. The nasal septum was found slightly deflected towards the right. The mucous membrane over the turbinate bones was very much hypertrophied but was readily retracted with cocain and adrenalin solution. A probe passed through either meatus met with an obstruction far back, which upon examination was found to be due to a hard, firm partition apparently closing the entire passage. The middle of each partition was marked by a slight depression. Post-rhinoscopic examination revealed a septum completely closing the lumina of both choanae. It seemed slightly convex and appeared to have a general direction downward and forward. It was placed just inside of the choanae. The margins of the choanae were well defined and the vomar projected slightly beyond the septae in the median line. To the finger the septi gave the impression of being bony. The palatine arch was about normal. There was no retraction of the drums. Hearing for watch and voice normal.

Recognizing the condition as a complete bony occlusion of both choanae an operation was advised and accepted. As I was not equipped at the time with electric drills I had a hand trephine made

\*Read before the Louisville Eye, Ear, Nose and Throat Society, March 12, 1914.

with three-eighths inch aperture and with long shank. After cocainizing the bony septi anteriorly and posteriorly with a 10 per cent cocaine solution I was able, with the trephine, to make a single opening through the wall of the right side removing a button of bone one-sixteenth inch in thickness. The operation gave the patient considerable pain when the trephine penetrated the posterior surface and the patient refused further work at the time. She was able to blow blood and mucus through the right side of the nose, which to her was a novel sensation. A short strip of gauze was placed in the opening. As the patient took French leave on the next day, she passes from my observation.

Eight years later (November, 1913) while passing through the city to her present home in Ohio, the patient called on me to tell

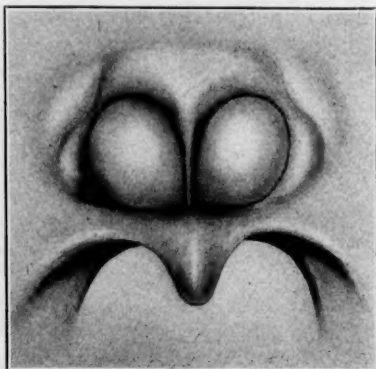


Figure 1. Schematic illustration of the reported case of complete bilateral occlusion of both choanae.

me that she had been able ever since the operation to blow through the operated side of her nose. However, I found that she could get but little air through the nose and that she had a very small aperture near the middle of the bony septum on the right side. The left was unchanged. The mucous membrane of the nose was boggy and swollen.

Although cases of atresia of the choanae are uncommon, over a hundred cases have been reported. In 1904 Schmiegelow (*Annals of Otology*) gathered from the entire medical literature sixty-one cases, most of them osseous. The condition has been observed more frequently in females than in males, and when unilateral more on the right than on the left. Atresia of the choanae is mostly congenital.

although cases of acquired (membranous) atresia have been reported. It may be osseous or membranous or part bony and part membranous (Zuckerkandl, Onodi). The great majority are of the bony variety although cases of congenital membranous atresia have been reported. It may occur on only one side or it may, as in our case, be bilateral. Some cases of partial atresia have also been reported.

Schwendt regarded cases like ours in which the posterior edge of the vomar extended beyond the level of the bony partitions as the typical cases and referred to the ones in which the choanal edges and the posterior edge of the vomar and the bony occlusion are on a level as the atypical. Many theories have been advanced as to the pathology of these cases. Schwendt, who seems to have given this

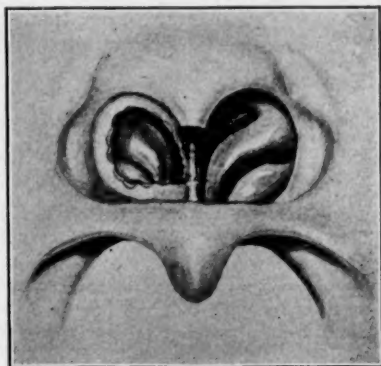


Figure 2. From Katz "Intranasal Surgery," illustrating complete operation in a case of bony occlusion of the right choanae.

subject most study, believes that bony septi spring from the horizontal position of the palate bone. Some look upon the septi as extensions from the pterygoid bones and others from the vomar.

Hochstetter has advanced the hypothesis that during embryonic life the epithelial membrane closing the primary nasal chambers is penetrated by the mesoderm.

The symptoms of the atresia of the choanae are very much as described in the reported case. There is inability to breathe through the affected side; anosmia, especially when bilateral, due to inability to sniff air into the nose; and in some the sense of taste is also affected. There is a retention of mucus in the nasal passages, sometimes of an offensive nature, due to putrefactive changes. The

mucous membrane in the nose is nearly always hypertrophied—sometimes polyposed. In addition to these symptoms many of the cases have the facial expression and the high palatine arch characteristic of mouth-breathers. Many of the cases are associated with deafness. Most of the subjects have a peculiar nasal twang to their voice.

The diagnosis of atresia of one or both choanae should be easily made by post-rhinoscopic inspection and digital examination. The thickness of the bone can be determined by placing a light in the naso-pharynx behind the septi. The treatment of these cases is necessarily surgical. As a large opening is essential to prevent reclosure, it is advisable to correct nasal deformities and hypertrophied tissue to give an unobstructed view and an easy passage for the instruments required in operating on the choanal obstruction.

Katz (*Handbuch der speciellen Chirurgie*) suggests that these cases be thoroughly anesthetized with cocain or alypin on both sides of the deformity, and that three or four holes be drilled with the electric drill and that these be made into one opening by sawing or punching out the bone between the holes, or one hole can be made and most of the partition removed with punch forceps. He advises that the opening extend on the median side as far as the nasal septum and that the free or posterior edge of the vomar also be removed, thereby creating a larger opening and lessening the tendency to reclose. If the opening is too small there is danger of reclosure.

706 Atherton Building.

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**Successful Treatment of Atrophic Rhinitis and Ozena.** L. JACOBS.  
*N. Y. Med. Jour.*, May 31, 1913.

Dr. Jacobs reports six cases successfully treated with scarlet red and details the technic. He states that scarlet red may be applied to the nasal mucosa without fear of constitutional symptoms; that the best excipient for the applications is mucilage of acacia; and that the treatment is simple and short and of great benefit. Ed.

## CASE OF PURPURA HEMORRHAGICA.

DR. E. B. GLEASON, Philadelphia.

Man 50 years of age. At the age of 17 he contracted syphilis. He afterward married and had two healthy, robust children, but had taken much mercury. For the last eighteen months has had recurrent nasal hemorrhages which were controlled by packing his nose. The last hemorrhage which occurred on February 21 was severe. The patient was brought to me from Wilkesbarre, Pa., on February 22. The nose was tightly packed to enable him to take the long railroad journey. He had a temperature of  $101^{\circ}$ ; a red blood count of 3,800,000, hemoglobin 50 per cent, and a moderate leucocytosis. On the body were numerous purpuric blotches which he stated had recurred from the past eighteen months from time to time.

Treatment consisted in the removal of the packing from nose and naso-pharynx and its replacement as required to control hemorrhage for two days. Internally calcium chlorid (5 grains) every three hours was given and on the second day, 20 ccm. of horse serum (Mulford's) was injected.

The horse serum controlled the hemorrhage so completely that after twenty-four hours, packing the nose was unnecessary. After another twenty-four hours, it was possible to cleanse the nose with a syringe without producing hemorrhage.

Wassermann reaction was negative. There was a deviation of the nasal septum to the left and atrophic rhinitis. At the patient's urgent request on February 22, 10 ccm. of horse serum was injected although there had been no hemorrhage since the first injection.

The interesting features of the case are that mercury had possibly produced the purpura, and the prompt control of the hemorrhage by the injection of horse serum.

A careful examination of the nose showed nothing except atrophic rhinitis with deviation of the septum to the left. All edges and spurs on the septum were excoriated as well as the edges of the turbinates. There was a discharge of colorless transparent mucus on the right side, apparently from the posterior ethmoid cells and sphenoid antrum. In fact nothing more than would result from packing the nose to control hemorrhage was discovered by careful inspection.

2033 Chestnut Street.

## **A CASE OF SUPPLEMENTAL VICARIOUS MENSTRUATION CURED BY SUBMUCOUS RESECTION OF NASAL SEPTUM.**

DR. WILLIAM T. PATTON, New Orleans.

Miss A. D., age 20. Past history: Always a healthy woman; never any serious illness; began to menstruate at 15 years, and began to have hemorrhages from nose at same time each month. About three days before menstrual flow starts, the nose begins to bleed, and continues up to beginning of flow. Menstruates three or four days, no pain, seems perfectly normal. Was referred to me for severe pain and tenderness over left supra-orbital region.

Examination: Fairly large nose, both inferior turbinals swollen and congested. Application of cocain causes considerable shrinkage. Septum badly deviated in "S"-shape deformity, touching anterior end of lower turbinal on right side, pressing the mid-turbinal on left.

Transillumination: Left side dark. Submucous resection advised. Operated on October 4. Packing removed October 5. Uneventful healing, pain and tenderness disappeared next day as soon as pack removed. October 30: Patient feeling fine, no headache, has menstruated past week without any hemorrhage from nose. December 3: Patient reported that she was feeling fine, had passed second menstrual period without inconvenience. I think this is a rather unusual case, although it could hardly be called true vicarious menstruation. January 24: Still continues without any trouble. March 6: Patient has had no trouble and menstruates normally each month.

1109 Maison Blanche Building.

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### **Nose as Source of Infection in Chorea and Acute Rheumatism.**

M. SENATOR. *Deut. med. Wchnschr.*, May 8, 1913.

Senator reports the case of girl of 10 years in whom chorea developed nine days after the removal of a pharyngeal tonsil and points out the relationship between articular rheumatism and chorea on the one hand, and the nasal etiology of the former. He further states that the nose and tonsils are also the entrance portal for the infection in chorea.

Ed.



**REMOVAL FROM THE ESOPHAGUS BY MEANS OF AN  
ESOPHAGOSCOPE OF A PLATE OF FALSE TEETH  
EMBEDDED FOR EIGHTEEN YEARS.\***

DR. D. BRADEN KYLE, PHILADELPHIA.

With the aid of the esophagoscope it apparently would not be difficult to locate a foreign body in the esophagus, and in the majority of instances this would be true. But in the case which I wish to report, where the foreign body had been embedded for eighteen years, the local conditions are so entirely different from those produced by a recent foreign body, that the entire procedure is different. The granulation tissue which had organized into fibrous tissue, the embedding of the foreign body in this tissue, together with the curvature of the spine as shown in the x-ray, rendered it exceedingly difficult to locate the foreign body in spite of its size and shape. The age of the patient and his generally poor condition was also an important factor in this particular case, the history of which is as follows:

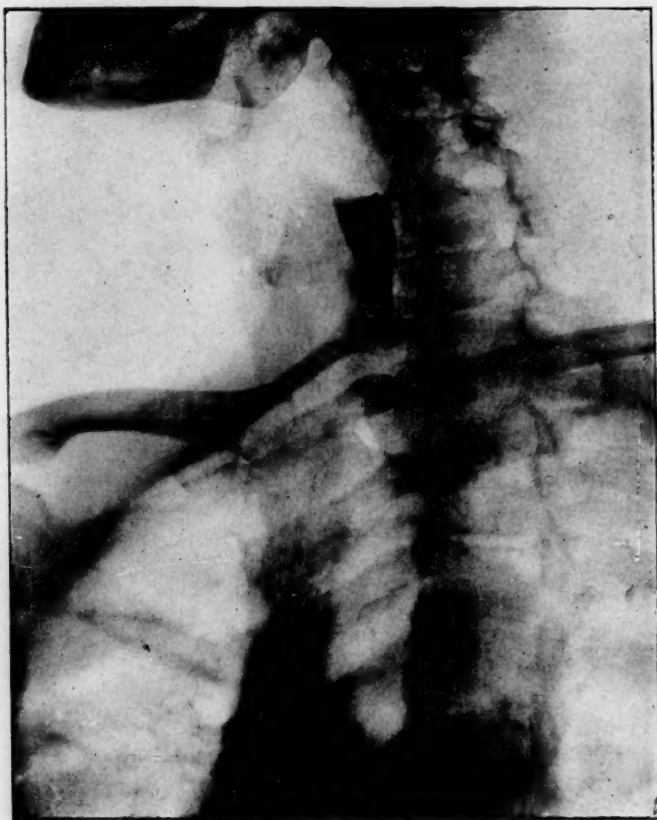
Early in the morning of October 15, 1895, the patient was suddenly awakened while dreaming—dreaming that he was swallowing egg shells. On becoming thoroughly conscious he realized that he was actually swallowing some hard object, and investigation promptly disclosed the fact that an upper suction plate with four attached front teeth, which he had left in place on retiring, were missing. Inserting his finger into his throat, he was able to touch the plate, but in his effort to grasp it, only succeeded in pushing it further down.

A physician was called, made an examination, but could see nothing. As the patient could feel that the plate was lodged in the upper part of the esophagus, the physician wanted to attempt pushing it down into the stomach. To this procedure the patient objected, and then went to a hospital, where another physician examined him, passed bougies and probangs, but with no result whatever, and ended by assuring the patient that he had never swallowed the plate, or if he had, that it was no longer in the esophagus.

During the first three weeks following the disappearance of the plate, the patient experienced slight pain in the lower part of the

\*Read at the Thirty-fifth Annual Meeting of the American Laryngological Association, Washington, D. C., May 7, 1913.

neck, at the point where he always felt the object had lodged. After that time, there was practically never any painful sensation, but swallowing had always been difficult. When solid food, meat, potatoes, etc., were taken, they had first to be finely ground. For months at a time he took only liquids. At the time of the accident, his age was 55 years and his weight 138 pounds. After about the second



year, he began to notice he was losing weight, and continued to do so until the present time, when, at the age of 72, he weighs but 110 pounds.

In 1901, six years after the disappearance of the teeth, the first x-ray plate was made in a further attempt to locate them. The



plate appeared to show a slight shadow just above the cardiac end of the esophagus. The passing of bougies, however, failed to disclose the presence of a foreign body in that region, and again the search was abandoned.

The patient's general condition continued the same until about the middle of January, 1913, when the difficulty in swallowing beyond a certain point markedly increased. On January 27, 1913, the patient was referred to me by his family physician, Dr. W. H. Hartzell. An x-ray plate was at once made. The negative (lateral view of the neck) distinctly showed the plate, its long axis parallel to the walls of the esophagus, and located immediately behind and extending a little below the cricoid cartilage. The teeth were attached to the lower end of the plate.

The same evening the patient was taken to the operating room and the removal of the teeth attempted. The pharynx and esophagus were anesthetized with 20 per cent solution of cocain, and the patient placed on a table with his head well extended over the end. The extension of the head on the shoulders was very difficult, owing to the rigidity of the entire spinal column. An attempt was made to secure a view of the plate by means of the Kirstein auto-scope, but this was found to be too short and the Kahler esophagoscope was used instead. With this instrument a portion of the surface of the plate was brought to view, about 18 centimeters below the anterior margin of the upper jaw, but the upper edge appeared to be covered by fibrous tissue.

Efforts were made through the esophagoscope with various forms of forceps to find and grasp the edge, but without result. The esophagoscope was then removed and an attempt made with an ordinary long laryngeal forceps. I was able to partially displace the thickened tissue over the upper margin of the teeth, so that with the laryngeal forceps a hold was secured, but considerable force failed to dislodge the plate. It was then decided to allow the patient to rest for a time. Very little soreness and practically no hemorrhage followed this manipulation.

On January 30, a second attempt was made, the patient anesthetized as before, but this time sitting on a low stool with head and back supported by an assistant. This position was found to be much easier for both patient and operator. On this occasion, through the Kahler esophagoscope, a portion of the tissue covering the upper edge of the plate was cut away with biting-forceps; thus exposing it to view. Seizing the plate with the same forceps, effort was made to withdraw it, but the forceps slipped off and the plate remained.

After similar repeated efforts, owing to the fatigue of the patient, it became necessary to again cease manipulations for a time.

In the meantime, another instrument, a long, biting-forceps suitable for use through the Kahler esophagoscope, had been secured, and on February 4, a third attempt was made, in all respects similar to the second, except that the new biting-forceps was used for cutting away more of overhanging tissue and grasping the plate. The plate was distinctly loosened from its bed at this time but not sufficiently to be withdrawn before weakness of the patient and slight hemorrhage, which obstructed the view, made it seem advisable to discontinue a third time.

On February 10, the patient was prepared as before, and with the Kahler esophagoscope the plate was promptly located and grasped with the biting-forceps, which held it while steady traction was made. The plate moved slightly—perhaps half or three-quarters of an inch—when the forceps slipped off. The esophagoscope was readjusted, the assistant supporting the head was directed to apply external pressure to the foreign body in a direction backward and upward, the plate was again seized, steady upward traction applied, and esophagoscope, forceps and teeth all steadily withdrawn.

The plate and teeth were found to be in a perfect state of preservation. The plate measured  $1\frac{3}{4}$  inches in length by  $1\frac{1}{4}$  inches in its greatest breadth. Practically no hemorrhage and very little soreness followed the final operation. The second day after the removal of the plate difficulty was experienced in swallowing. This difficulty in swallowing was due not to any swelling but to the fact that there was no muscular action in the esophagus and the portion involved by the foreign body was almost the same as the sacular dilation; in other words, the cause of the lateral distention in the esophagus had not been removed and the physiological contraction did not take place. Liquids taken appeared to be arrested in the pocket which the plate had formed in the anterior wall of the esophagus. It was found, however, that by taking a very small portion of liquid at a time it could be swallowed without great difficulty.

Local anesthesia was employed, first using a 5 per cent solution of cocaine in the upper part of the esophagus, and then by means of an atomizer through the esophagoscope a 20 per cent solution was used further down.

The scar tissue formation was not circular, but was limited to the point of impingement of the suction plate at its widest diameter, as

is shown in the x-ray. This made two areas of scar tissue, one on each lateral wall. However, at the top of the plate, on account of the friction, granulation-tissue had formed and extended out over the upper margin of the plate. This tissue was almost a quarter of an inch in thickness and extended down over the plate a considerable distance. This scar tissue was removed at one margin of the plate so as to enable me to pass an instrument underneath the plate and in that way make a certain amount of traction and force the plate away from the scar tissue. As shown in the x-ray photograph, the foreign body was on the laryngeal side, the curvative fitting around the larynx.

One of the peculiarities of the case was that the patient had not suffered from any laryngeal symptoms, and it would seem impossible to have a foreign body of such size embedded in the esophagus and against the trachea without producing any respiratory symptoms. In the early history of the foreign body, the patient complained of some soreness in his throat, although he never suffered any severe pain and never any difficulty in breathing. There was a slight alteration in his voice, due more to interference with the muscles of phonation than to the inflammatory action. The esophageal muscles, having been put on tension for so many months and years, had lost their muscular elasticity, and the inability of the patient to swallow after the removal of the foreign body was due more to this than it was due to the amount of scar tissue.

It is now three months since the removal of the foreign body, and the esophageal muscles have increased considerably in their action, and the patient is now able to take semi-solid food.

I think the successful removal of this foreign body was due largely to the fact that I proceeded slowly and made as little trauma as possible in the esophageal structures; and by loosening the foreign body from its fibrous bed, by setting up slightly inflammatory action, and then waiting a few days, I was enabled to remove the plate without much laceration of the structures.

1517 Walnut Street.

## DEATH OF AN INFANT CAUSED BY FRAGMENT OF PEANUT IN LEFT LUNG,

DR. E. W. CARPENTER, Greenville, S. C.

Thomas Gist, age 18 months, was referred to me by Dr. W. O. Southard, Jonesville, S. C., December 31, 1913, with the following history: While playing on the floor seven weeks prior to this date, infant was seized with a prolonged and severe choking spell. The mother found some raw peanuts on the floor near the child. A cough developed, intermittent in character, frequently followed by vomiting. In a few days fever and wheezing were noted and a left-sided pneumonia developed. This ran the usual course, but resolution did not set in and for this reason the attending physician referred it to me for further study.

*Status presens:* Infant looks ill; temperature, 100°; pulse 140; respiration, 40. Frequent, short and feeble cough. Left lung solid, right lung filled with large moist rales. An x-ray picture showed a very dark left lung without a suggestion of a foreign-body shadow.

Without anesthesia of any kind a 6 mm. Jackson bronchoscope was introduced into the trachea to the bifurcation. The right main bronchus contained much pus, but the left was completely filled with thick, foul-smelling pus, and the bronchoscope would not enter because of the swollen mucosa. With small pledgets of cotton I was endeavoring to clean out this excretion, when, without warning, a flood of pus welled into the bronchoscope and respiration was immediately suspended. Inversion, artificial respiration and distension of lungs with oxygen proved unavailing; there were a few spasmodic movements of the larynx but never a successful respiration.

It was estimated that at least two ounces of very thick, foul-smelling pus escaped through the mouth and nares while the infant was inverted.

I believed that this infant was drowned by the sudden release of pus, precipitated by dislodging the piece of peanut kernel which had more or less completely block the bronchus and dammed back most of the excretions.

\*Read before the Tri-State Medical Society, Wilmington, N. C., February 18, 1914.

*Autopsy:* Left pleura completely adherent to lung and chest wall. Lung very hard and dark—brown throughout; on section multiple abscesses presented, ranging from the size of a buck shot to an almond, a piece of peanut kernel, pyramidal in shape, measuring 8 mm. on base line and 5 mm. perpendicularly was found in the left main bronchus half an inch from the orifice.

Apparently all the mediastinal glands were enlarged; one was as large as a hickory nut with a central collection of pus.

I submit this case-history to you because I failed to relieve the condition. Our failures often teach us more valuable lessons than the results we usually designate successes.

The first lesson that this case teaches is the danger in delay. When the presence of a foreign body is suspected in the lungs it is imperatively necessary to investigate, there is only a small element of risk in looking, and no resource is as satisfactory as that with the eye. The second lesson is the intensely irritating quality of the peanut kernel. In a personal communication with Dr. Chevalier Jackson, he states that it is the most irritating of all foreign bodies in the lungs.

Among the thirteen cases of foreign bodies that I have reported, four were vegetable substances. One a peanut hull, another a fragment of corn-bread, the third a grain of corn which caused intense inflammation, and the fourth is included in this report.

The peanut hull caused very little reaction, the corn bread was an early case of only a few hours' duration, and while the infant appeared entirely relieved immediately after the removal of the fragments of bread, I do not know the ultimate history of this case. The other cases were glass or metallic substances and the presence of these caused very little offense to the lungs or esophagus.

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**Symptoms and Diagnosis of Diphtheria.** LEON J. MENVILLE,  
*New Orleans Med. and Surg. Jour.*, July, 1913.

Menville maintains that the physician should be thoroughly trained in recognizing the Klebs-Loeffler's bacilli, both in stains and in culture, so that it will no longer be necessary for him to require the proofs from another source.

SCHEPPEGRELL.

**BARANY'S THEORY OF CEREBELLAR LOCALIZATION:  
DIAGNOSTIC VALUE OF THE POINTING TEST  
IN CEREBELLAR ABSCESS.\***

DR. PHILIP D. KERRISON, New York City.

When the characteristic focal symptoms are all present, there is probably no lesion more easily recognized than a cerebellar abscess. Unfortunately there are many cases of cerebellar abscess in which focal symptoms are totally absent. Any new symptom, or phenomenon, therefore, which in an obscure case may help us to a correct diagnosis is surely worthy of our careful study.

Before we can apply these comparatively new tests to the diagnosis of cerebellar disease it is absolutely essential that we possess a working-knowledge of the normal pointing reactions. By normal pointing reactions I mean the pointing deviations or departures from the normal pointing accuracy which regularly occur in response to vestibular irritation. For the moment, therefore, we must leave cerebellar disease out of our consideration and direct our attention to the deviations from normal pointing accuracy which regularly follow or accompany experimental irritation of the sound vestibular apparatus. These pointing deviations will be found to exhibit an invariable relation to the nystagmus induced by the experiment.

*Normal pointing accuracy:* Normally the average individual with eyes closed and having located some fixed object by the sense of touch—say with the index finger of either hand—can lower the hand and arm to the vertical or hanging position and then bring the finger again into contact with the object touched, or will miss it only by a fraction of an inch. If instead of lowering the hand, the arm is moved in the horizontal plane so that the hand travels through a one-fourth arc of a circle, it can be brought back, the finger again traversing the horizontal plane, to contact with the object previously located by touch. This represents the normal standard of accuracy.

The pointing test most commonly used is of the accuracy of movement in the vertical plane and is applied as follows: The examiner and the patient stand facing each other, the latter with

\*Read in part before the American Laryngological, Rhinological and Otolological Society, Eastern Section, January 17, 1914, and in part before the New York Neurological Society.



eyes closed or blind-folded and with the arm to be tested extended straight in front of him. The hand is supinated so that the palmer surface of the finger which is to receive the touch-impression is directed upward. In contact with the palmer surface of the patient's finger, thus extended, the examiner places his own finger, pressing downward. To insure a satisfactory test, Barany has found that it is better that the full palmer surfaces, not merely the tips, of the fingers of examiner and examined should be in contact. The patient is now instructed to lower the hand and arm to the hanging (vertical) position and then slowly elevate his finger to contact with that of the examiner, which is held immovably in the original position. The average normal individual finds no difficulty in doing this, or misses only by a small fraction of an inch.

*Normal pointing reactions:* We are now in a position to study the character of the deviation from normal pointing accuracy which regularly accompanies irritation of the sound vestibular apparatus.

*Method of applying test:* If we irrigate with cold water, let us say the right ear, there is developed a well-marked rotary nystagmus to the left, and the individual, attempting to stand, *tends to fall to the right*. Now quickly, i. e., while the nystagmus is still active, test his pointing accuracy in the vertical plane by the method already described. It will be found that, having located by touch the examiner's finger with his own, his hand in being lowered will swerve somewhat from the vertical plane to the right, and again in being elevated it will deviate further to the right. His hand, therefore, in being depressed and elevated describes a **V** falling to the right of the object he is trying to reach. Stating this reaction in the form of a rule, we may say that *the pointing deviation resulting from vestibular irritation is invariably in the direction opposite to that of the induced nystagmus*. It therefore corresponds with the direction of the falling tendency—i. e., the direction in which, if he attempted to stand, he would demonstrate a tendency to fall.

*Disturbed orientation of points of space in cerebellar disease:* Like other focal symptoms of cerebellar disease the phenomena we have now to consider may, or may not, be present. When present they may be a determining factor in the diagnosis of an otherwise obscure case. Their absence, however, does not in the least justify a conclusion that the cerebellum is not diseased.

The loss of pointing accuracy characteristic of a cerebellar lesion may be demonstrated in the following way: the patient, be-

ing blind-folded, the pointing accuracy of the two hands is separately tested by the method already described. In a case in which the symptoms is present it will be found that the arm corresponding to the cerebellar lesion will regularly deviate outward, while the opposite hand (i. e., that corresponding to the sound side) will continue to point with normal accuracy. Thus in a lesion of the right cerebellar hemisphere, the right hand deviates outward, i. e., to the right; with a left cerebellar lesion the left arm deviates to the left, the arm corresponding to the sound cerebellar hemisphere maintaining in either case the normal pointing accuracy. This is the first part of the test. We must now corroborate the result thus obtained by testing the reaction to vestibular irritation.

Supposing, for example, that in a case of suspected cerebellar lesion we have tested the pointing accuracy of both arms and found that the right arm shows unmistakable outward deviation (i. e. to the right) while the left arm points accurately—this so far as it goes, would indicate disease of the right cerebellum. We must now test the reaction of the right arm to vestibular irritation. This is done by syringing the left ear (i. e. the ear of opposite side to the supposed lesion) with cold water. This is followed by a rotary nystagmus to the right, during which in a normal individual both hands in pointing would deviate to the left. If now in the presence of an induced nystagmus to the right, the right arm does not deviate as normally to the left, but continues as before to deviate outward, (i. e. to the right) while the left hand shows the normal reaction to the left, we have a clear and positive indication of a lesion involving the right hemisphere of the cerebellum.

In order to illustrate these reactions and also certain later functional changes in cerebellar disease, we may cite a striking example in a case already reported by Barany. This was a somewhat obscure case in which indefinite indications of intra-cranial disorder, with complete absence of all focal symptoms other than loss of pointing accuracy were present. The patient, a boy, exhibited some of the general characteristics of a suppurative lesion within the skull, but no focal or localizing symptoms pointing to cerebrum or cerebellum or indicating in which side of the brain the lesion, if present, should be looked for. The pointing tests demonstrated the following conditions: The left arm maintained its normal pointing accuracy and in response to vestibular irritation showed normal reactions. The right arm, on the other hand, exhibited a constant spontaneous deviation outward, i. e. to the right. When the left ear was irrigated with cold water the usual rotary nystagmus to



the right was induced, but the right hand did not show the usual pointing deviation to the left.

On these two functional changes—viz. spontaneous outward deviation of the right arm and its failure to respond as normally to vestibular irritation, a diagnosis of right cerebellar abscess was made. This diagnosis was confirmed by operation during which the abscess was located and evacuated.

While in the nature of the lesion these cases are not very common, the case cited is not unique, others having been reported by Barany, Bruehl and other observers, in which exactly the same phenomena were proved, by subsequent operation, to have had their origin in an abscess of the cerebellum.

Let us note now the influence upon these functional changes of the opening and evacuation of this abscess. Two days after the operation it was found that the pointing accuracy of both arms was normal—or, in other words, the spontaneous outward pointing-deviation of the right arm had entirely disappeared. When, however, the reaction to vestibular irritation was tested it was found that when the left ear was irrigated with cold, the left arm showed the normal deviation to the left, while the right arm continued to point with normal accuracy. In other words, as a result of the cerebellar abscess or more likely of the incision through which it was evacuated, the right arm could no longer be made to deviate to the left in response to vestibular irritation.

This also is not unique, Barany having repeatedly demonstrated, in cases of cerebellar abscess which have recovered following surgical evacuation, the absence of the normal vestibular reactions in the arm corresponding to the lesion. This in some form seems to be a permanent functional change.

*Barany's theory of cerebellar localization:* Barany believes that there exist in the cerebellar cortex certain definite centers which have to do with the orientation of fixed points of space. Each of these centers, he believes, exerts upon some particular joint, or its controlling muscle groups, a pull or tonus, in a certain definite and constant direction. For each joint there exist separate centers which maintain tonuses in different directions. Thus there are separate centers which exert respectively an inward and an outward tonus upon the muscle groups of the shoulder, and which confer upon the normal individual the ability to move the arm correctly in the vertical plain without the aid of sight. Logically in such a scheme there must be additional centers for each joint, exerting

respectively an upward and a downward tonus, which are necessary to correct orientation or movements in the horizontal plane. As in the motor area of the cerebrum there are centers presiding over the voluntary movements of each small muscle group, so with the cerebellum there are separate centers for different joints—e. g. the shoulder, elbow, wrist, the hip, knee, ankle, the neck, etc. These various cerebellar centers, acting in harmony, must play an important role in co-ordinating the movements of the various joints.

The result of any lesion—e. g. trauma, tumor or abscess—destroying or functionally suppressing one of these centers is equivalent in effect to a stimulation of the opposing center. Thus, if the center exerting an inward tonus upon the shoulder-movements is destroyed, the arm in trying to execute movements in the vertical plane without the aid of sight will deviate outward. The spontaneous deviations from normal accuracy resulting from cerebellar lesions are therefore to be explained as wholly the result of cerebellar enervation.

*Cerebellar centers for wrist and shoulder joints:* While this theory of cerebellar function seems fairly established, we have as yet definite information of only a few important centers, the exact location of others awaiting further investigation. Since the cases from which our knowledge has been chiefly drawn are for the most part those of cerebellar abscess of otitic origin, it is clear that the cerebellar surface extending from the sigmoid sinus forward along the posterior aspect of the petrous bone to the internal auditory meatus represents the general area which should first be investigated, and in the cases in which these phenomena have been most clearly demonstrable, the lesion has usually been found in close relation to this area.

Barany places the center exerting inward tonus, or pull, upon the movements of the wrist joint in the middle inferior lobe (slender lobe) near the flocculus. The center exerting a similar tonus upon the shoulder joint he places also in the middle inferior lobe, but behind the wrist center by about 10 or 12 mm. The evidence as to the correct localization of these two centers will be stated presently.

The center exerting a downward tonus upon the shoulder joint, destruction or paralysis of which would cause pointing deviation upward, is placed in the most superior and inner corner of the hemisphere, and includes adjacent surfaces of the superior and inferior semilunar lobes. The center for outward tonus (shoulder joint) suppression of which would cause pointing deviation inward, is located in the outer or lateral margin of the lobus semilunaris superior.

Of these centers the first two (those exerting inward tonus upon wrist and shoulder movements respectively) are by far the most important from the standpoint of practical diagnosis for the reason that they are the centers most commonly involved in otitic cerebellar abscesses.

In cases of cerebellar disease in which spontaneous pointing deviation has been present, Barany has frequently demonstrated similar deviations in various joints—e. g. shoulder, elbow, wrist, hip ankle and even in the movements of the waist—i. e., the rocking or forward and backward movements of the trunk, the pelvis being held stationary. The time at my disposal will not, however, allow me to speak separately of the different joints and the method of testing their accuracy. The careful investigation of the different joints may prove to be of practical diagnostic value in the case of small and slowly developing tumors. I am inclined to believe, however, that in any case of otitic cerebellar abscess in which the arm (shoulder joint) shows no spontaneous deviation, little of practical advantage will be gained from the investigation of other joints.

*Evidences of the correct localization of the wrist and shoulder joints (inward tonus):* 1. Both of these centers fall within that portion of the cerebellar cortex which would be most subject to pressure by an otitic cerebellar abscess, and cerebellar tumors and abscesses in this situation frequently give rise to characteristic deviation both of arm and wrist. 2. Characteristic deviation following surgical injuries at cortical points named.

*Case 1:* In a case operated upon in the Vienna General Hospital the cerebellar dura in front of the sigmoid sinus had been freely exposed. During the further course of the operation an instrument in the surgeon's hands slipped, entering the cerebellum through the middle inferior lobe near the flocculus. After recovery from the anesthetic his pointing accuracy was tested. The wrist corresponding to the side of the brain injured deviated strongly outward, the opposite hand and arm pointing accurately.

*Case 2:* Patient in this case presented certain features characteristic of cerebellar abscess but no focal symptoms. Exploratory operation was decided upon. First one cerebellar hemisphere was explored, but no abscess being found the operation was repeated on the opposite hemisphere in which also no abscess was found. On each side an exploratory puncture had been made through the middle inferior lobe at the point located at the center for the shoulder joint (inward tonus). The case therefore furnished a unique

opportunity for corroboratory tests. After recovery from the anesthetic the pointing tests were made. Both arms showed very marked characteristic deviation outward.

*Effect of freezing:* To add to the evidence above cited, Barany determined to try the effect of cold applied locally to one or other of the centers named. From the nature of the tests animal experimentation could not be made use of. It was necessary, therefore, to wait for some suitable case in which, following an operation, a considerable area of cerebellar dura had been left exposed. Several available cases have been found in patients who have recovered from operations leaving a suitable cerebellar surface covered only by a very thin layer of skin. The experiment is carried out by freezing with an ethyl chloride spray the center for the shoulder joint (inward tonus). It has been repeatedly demonstrated that after freezing this center for a period of two and a half minutes strong outward deviation is established. The inference from this experiment would seem to be two-fold: first, it corroborates the correct localization of this center; second, the prolonged freezing, (i. e.  $2\frac{1}{2}$  minutes) necessary to a definite response seems to show that the phenomenon is wholly the result of cerebellar enervation, complete temporary paralysis being essential to a well-defined reaction.

Definite proof of the separate existence of two distinct centers for the shoulder and wrist is not so easily established. A lesion causing suppression of one center will almost inevitably disturb both centers. In some cases deviation of the whole arm is pronounced, while deviation of the wrist is not so clearly demonstrable. But we must remember that the normal reactions of the wrist to vestibular irritation are usually less pronounced than of the shoulder. The strongest proof of the separation of these two centers is found in the late functional changes in certain cases recovering after operation, of which the following furnishes an instructive example:

*Case 3:* The patient, a boy, showed before the operation strong spontaneous outward pointing deviation of right arm and wrist. At operation, a right cerebellar abscess was evacuated through an incision into the cerebellum in front of the sigmoid sinus. Following evacuation of the abscess the spontaneous outward deviation disappeared within a few days, both arm and wrist regaining their normal pointing accuracy. Tests of the normal reactions to vestibular irritation showed, however, the usual reactions in the left arm, but absolute loss of response in the right shoulder and wrist.

Some eight weeks after the operation, re-examination of the patient showed beginning restoration of the normal reaction in the right shoulder, which within a few days became complete, the right arm deviating normally to the left during nystagmus to the right induced by irrigation of the left ear. *The wrist, however, remained absolutely irresponsive to vestibular irritation.* So far as is known this has persisted as a permanent functional change.

For the writer, it is difficult to find any hypothesis which will quite satisfactorily explain all of these phenomena. Barany's theory as to their causation is somewhat as follows: The spontaneous outward pointing deviation which occurs as an occasional focal symptom of cerebellar abscess or tumor is caused by pressure of the abscess or tumor upon the center or centers involved; in the case of the wrist or shoulder, the inward tonus being for the time abolished the hand or arm in pointing is dominated by the still intact center for outward tonus, and therefore deviates outward. When the abscess is evacuated, pressure is relieved and the center regains in part its control of position-sense in the joint involved. This partial restoration of functional activity in the special center involved is probably re-inforced by a balancing or compensatory reduction of activity in the opposing centers for outward tonus. Reasoning by analogy with other instances of the compensatory activity of apparently unrelated organs in assuming the duties of a mechanism disabled or destroyed, it is also possible that the cerebrum may also play some part in restoring the power of correct arm movements in the vertical plane.

It is assumed, however, that the incision passing through the cortical center for inward tonus results in organic changes which permanently isolate this particular center from the influence of vestibular irritation, so that the arm or wrist no longer deviates inward in response to appropriate irritants. In the case cited in which, following evacuation of a cerebellar abscess, the normal reaction was finally restored in the arm (shoulder joint) but continued permanently absent in the wrist, Barany assumes that the incision of the cerebellum permanently destroyed only the wrist center. The early and somewhat prolonged loss of reaction in the shoulder joint is explained as having resulted from a surrounding cortical inflammation which ultimately underwent complete resolution. The permanent loss of normal reaction in the wrist and its restoration in the shoulder joint he interprets as conclusive evidence of the separation of these small cortical areas as distinct centers.

58 West Fifty-sixth Street.

## THE DIAGNOSIS AND TREATMENT OF BRAIN ABSCESS.\*

DR. WILLIAM SHARPE, New York City.

No other intra-cranial condition offers greater difficulties of diagnosis and of successful treatment than brain abscess. It can simulate many intra-cranial lesions so closely that an operation, when advised, is performed frequently as an explorative procedure; this is particularly true of those abscesses located above the tentorium.

The history naturally plays a most important part in the diagnosis. A definite history of cranial injury, especially of fracture of the base, previous middle-ear disease and septic processes occurring in any part of the body, particularly of the nose and throat, the lungs and of the pelvis, are the usual forerunners of brain abscess. Months may elapse before marked signs of the intracranial lesion appears, but I think a careful inquiry into the histories of such patients will usually elicit symptoms pointing to the formation of the abscess during this interval of apparent latency. I refer to those vague indefinite headaches of short duration, occasional "neuralgic" pains in the head, an unusual drowsiness, at times associated with anorexia and possibly nausea. Frequently these disturbances are so mild and so transitory that the patient does not consult a doctor, and if he does, then the digestive tract is usually considered to be the site of the trouble, constipation being always present.

Metastatic abscesses resulting from infective processes elsewhere in the body are usually multiple, and therefore their symptoms and signs are more marked and overwhelming. It is an interesting observation that they occur most frequently in the region of the left Sylvian fissure, due probably to the more direct blood-current of the left carotid artery. Naturally the treatment of multiple metastatic abscesses of the brain is rarely successful.

It is, however, in those cases of brain abscess of contiguity that an ever increasing percentage of recoveries may be obtained. They are almost always limited to one single abscess, which may slowly enlarge to the size of an orange—its symptoms frequently being only those of pressure; its capsule may become an eighth of an inch in thickness, completely walling it off from the surrounding brain tissue. Naturally, the situation of the abscess is in the neighborhood of the originally infecting focus, whether it is an infected

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fracture of the vault or one of the base, a purulent rhinitis or sinusitis, or an otitis media. The localization, however, is not so easy and simple as this may seem, and I repeat that all operations for brain abscess should be advised as exploratory procedures, in the hope that the abscess may be located in the neighborhood of the incision.

The most common site of brain abscess is in the temporo-sphenoidal lobe, particularly its inferior and posterior portion; 60 per cent of brain abscesses are to be found in this lobe. Naturally, the source of infection is usually an otitis media, which is also the forerunner of the next most common brain abscess—that in the cerebellum; in it occur about 25 per cent of the cases, while the remaining 15 per cent are to be found in either frontal lobe, the cortex underlying an infected fracture of the vault and at the base of the skull.

Given the history of a fracture of the skull, otitis media, purulent rhinitis, pharyngitis or sinusitis, and subsequently the onset of rather severe headaches characterized by their periodicity with intervals of complete relief and comfort, spells of nausea and even vomiting, at times associated with drowsiness and even stupor, then an abscess of the brain should be suspected. A slight temperature may or may not be present. Naturally, a lumbar puncture should be made in each case in order to exclude a secondary meningitis, and a Wassermann test, both of the blood and of the cerebrospinal fluid, performed. An ophthalmoscopic examination may or may not show signs of increased intracranial pressure.

Like many tumors of the brain, abscesses produce their symptoms and signs chiefly by their pressure-effects, and not so much by an actual destruction and substitution of brain-tissue. The edema of the surrounding tissues may become very great at times, undoubtedly causing dural tension and the periodicity so characteristic of the headaches, nausea and vomiting, and the stupor. I have had the opportunity to observe a case of large abscess of the right temporo-sphenoidal lobe (confirmed by operation with recovery) and during the intervals of relief and apparent good health, the ophthalmoscopic examination was uniformly negative, whereas during the attacks of severe headache and stupor the increased intracranial pressure registered itself upon the fundus of the eye by a dilation of the retinal veins and an edematous blurring and haziness of the nasal halves of both optic discs; as the headache lessened, so did the edema of the optic discs slowly fade away. The cause of this

edema may be due to organisms or toxins escaping periodically through the abscess-wall into the surrounding brain-tissue.

To localize accurately the site of the abscess is a most difficult task. If preceded by an otitis media, then, the temporo-sphenoidal lobe should be considered the most probable site of the abscess; if not there, then the contiguous lobe of the cerebellum.

The temporo-sphenoidal lobes and especially the right one are comparatively silent areas of the brain. Taste and smell are here localized, but it has been in my experience very difficult to elicit definite disturbances of these two special senses in unilateral lesions of these lobes. The temporo-sphenoidal "fits" of the uncinate gyrus are fairly constant, especially in cortical lesions of the left uncinate gyrus; they are characterized by dreamy states of unreality, a perversion of taste and smell, and a smacking and sucking of the lips and tongue.

If the abscess is very large and sub-cortical, then the optic radiations extending into the temporo-sphenoidal lobe may be compressed and an homonymous hemianopsia may result. If in the left lobe, then a true motor aphasia may be produced by compression of the motor speech-area; usually, however, a paraphasia results and various combinations of sensory aphasia due to an obstruction to the sub-cortical connecting nerve-fibers which constitute the links of the complex mechanism of speech; so that the patient may be able to speak spontaneously and correctly and yet be unable to speak by reading or by imitation, to write spontaneously from dictation or by copying, and to understand spoken or written words. Central deafness is rare unless there is a bilateral lesion,—an exceedingly uncommon condition.

Abscess of the cerebellum has been in my experience less difficult to diagnose than those abscesses situated above the tentorium; not only are they more liable to produce the medullary signs of compression, such as a marked lowering of the pulse-rate and irregular respiration, but also a blocking of the iter with the resulting dilatation of the ventricles, and therefore the early signs of increased intra-cranial pressure as shown by an ophthalmoscopic examination of the fundus. As the abscess is usually situated in the anterior lateral part of the lobe nearer the affected ear, the facial nerve and even the trifacial nerve may be compressed so that an ipsilateral weakness and hypesthesia of the face may result. Corneal anesthesia may be present; homolateral weakness of the arm and leg may occur, and the other signs of a cerebellum lesion; nystagmus, usually toward the affected side, is fairly constant. Suboccipital



headaches are usually present, but I have found the location of the headache in brain abscess, to be very misleading. The Barany tests are naturally important aids in localizing the abscess in the cerebellum.

Abscess of the frontal lobes, especially of the right frontal lobe, is a most baffling condition for diagnosis. Naturally, a history of purulent rhinitis or sinusitis would tend to point to a lesion there, but frequently no such history is obtained. The right frontal lobe is practically *the* silent area of the brain, and I have removed this lobe entirely within the past six months in a patient having a large glioma of it, and apparently the only changes in his personality and mentality are that he is somewhat slower in adding figures in his work as a bank cashier, and, according to his wife, "he is less affectionate since the operation."

As the abscess enlarges posteriorly, motor impairment of the opposite side of the body will occur, and when downwards, then frequently a beginning homolateral primary optic atrophy of direct pressure upon the nerve contrasts strongly with the choked disc and beginning secondary optic atrophy of the other eye due to the increased intra-cranial pressure. Aphasia in its various forms may be produced by an abscess in the left frontal lobe. Frequently, a coarse homolateral tremor of the hand occurs. The "Witzelsucht" so commonly observed in tumors of the frontal lobes rarely occurs in abscesses of them.

Those abscesses resulting from infected fractures of the vault of the skull are usually to be found directly beneath the line of fracture. So much for a brief consideration of the diagnosis and localization of some abscesses of the brain.

*Treatment:* The treatment of brain abscess is a surgical procedure. Undoubtedly some abscesses are absorbed by the palliative expectant treatment, or at least the abscesses become so well "walled off" from the surrounding brain-tissue that clinically they may be considered "healed." However, it is a very dangerous method of treatment, and I feel that once the diagnosis and apparent localization of the abscess have been made, then an exploratory operation should always be advised. If, after repeated careful examinations, there are no localizing signs to be ascertained, then I advise a large sub-temporal decompression over that side of the head nearer the originally infecting focus (if it can be ascertained), usually an otitis media. A ventricle puncture needle can now be used at the lowest part of the temporal lobe and in this manner the entire temporo-sphenoidal lobe can be carefully and accurately explored, and

especially is this true of its inferior and posterior portions; if no abscess is found, then this decompression will relieve the symptoms until localizing signs may appear. Besides, the vision will not be impaired from the increased intra-cranial pressure. However, unless the abscess is situated beneath the tentorium, a "choked disc" in brain abscess is less frequently observed than in brain tumor.

Unless the abscess is directly beneath the dura so that it can be seen (and this is very uncommon) it is a dangerous and distinctly unsurgical procedure to puncture the dura blindly in the hope that the needle may locate the abscess. Not only may cortical vessels be punctured with the resulting sub-dural and pial hemorrhage, but if the abscess is found and a large dural opening not made, then the danger of not only a meningitis due to infection under tension is very great, but there is the still greater danger of medullary compression. In my opinion, patients frequently die not from the abscess alone, but rather from medullary compression due to the edema resulting from the abscess and the traumatism of punctures incident to the operation. Naturally, an encephalitis with meningitis may occur under the most favorable conditions, but it is much more liable to occur when the dural opening is not sufficiently large to lessen the high tension of the brain. Besides, free drainage is essential. Naturally, it is a very dangerous procedure to open the dura either by puncture or by incision through an infected area such as the mastoid.

I have been unable to find the so-called "stalk" of abscesses in the brain in all but one case, and in that case its length was hardly a centimeter and it was completely cut off from the deeper abscess.

In cerebellar abscess, the overlying half of the occipital bone should always be removed unless the abscess is in the cerebellar angle and so superficial that it can be seen beneath the dura; however, if the dural tension is very high, then both halves of the occipital bone including the posterior half of the foramen magnum should be removed; that is, the treatment of cerebellar abscess is the same as that of cerebellar tumor. Medullary edema and compression are to be feared in cerebellar abscess much more than in cerebellar tumor; besides it is extremely rare for a general meningitis to result if a large opening has been made so that the surrounding brain tissue is not under tension. For drainage, I have found glass tubing to be most satisfactory, especially the double tube, one tube being inside of the other one. In this pump-like manner the pus and purulent debris can be suctioned out, the outer larger tube being left in place.

In abscess of either frontal lobe, I believe a sub-temporal decompression should first be made on the side of the suspected abscess, and then a bone-flap opening made over the frontal lobe affected. If the abscess be found, then the bone flap can be replaced and the drainage tubes allowed to protrude through the lowest trephine opening. In this manner the sub-temporal decompression will lessen the intra-cranial tension, and if the abscess is not found, then it may allow the abscess to localize itself more definitely and yet lessen the symptoms and signs of general intra-cranial pressure, especially the headache, nausea and vomiting, slowed pulse and choked disc; that is, while waiting for the abscess to localize itself, we do not allow the patient to become blind or acquire a medullary edema. This is as true for brain abscesses as for brain tumor.

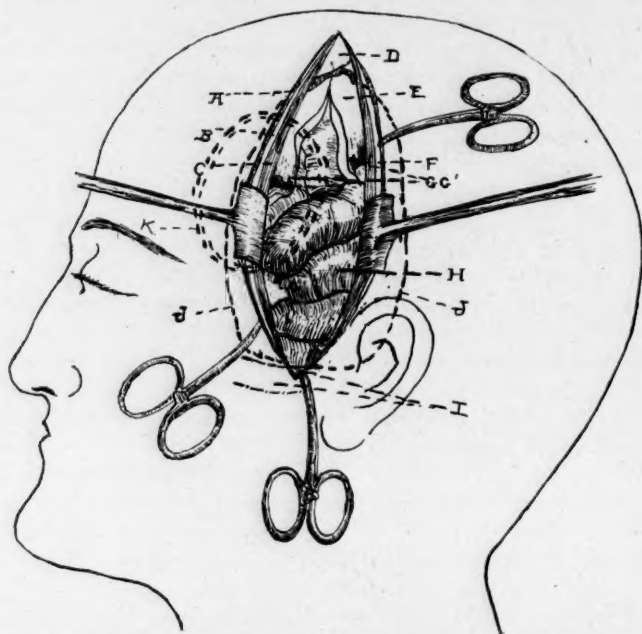
My own series of operated cases is limited to nine. Of these, three died, two from medullary edema resulting from a too small opening of the occiput in cerebellar abscess, and the third one from a meningitis following the drainage of a left frontal abscess through a small opening; no decompression had previously been performed. Of the six cases that recovered, four were in the temporo-sphenoidal lobes, one a cerebellar and one a right frontal abscess—all were treated by the method outlined in this paper.

I should like to report my most recent case to the society as it is interesting from several points of view. My notes of the case as it progressed are as follows:

Thomas: white, 34 years of age. Admitted to the Manhattan Eye, Ear and Throat Hospital on December 1, 1913. Service of Dr. Arthur B. Duel, to whom I am indebted for permission to report this case. F. H. Negative. P. H. Three months before admission, radical operation for left acute mastoiditis; apparently excellent recovery. P. I. Three weeks before admission, patient began having attacks of frontal headaches, associated with nausea and at times with vomiting; these spells lasted one or two days, and then the patient would apparently be in excellent health for five or six days when another attack would occur. Patient had two attacks in the hospital; pulse gradually became lowered to 54, respiration regular, however; the vomiting lasted thirty-six hours. I saw him in consultation on December 8, 1913.

P. E. Well-nourished; very alert mentally. Pulse 64, respiration 20, temperature 99°. Reflexes active, the right possibly greater than left; no Babinski. Abdominal reflexes—present and equal. No paralyses nor areas of anesthesia. No astereognosis. Pupils equal

and react normally. Fundi negative, except for slight redness of fundus; no marked dilatation of the veins. (The absence of pressure-signs surprising after what was found at operation.) No definite temporo-sphenoidal "fits;" no perversion of taste and smell. Some sensory aphasia; as he was unable to name things at times—a visual aphasia; no real motor aphasia. No cerebellar signs—no nystagmus, no ataxia, no adiadochocinesia, and no sub-occipital tenderness. Blood and lumbar puncture fluid—negative.



Abscess of left temporal sphenoidal lobe. Its mesial basal portion. Left subtemporal decomposition. A. Skin and superficial fascia. B. Temporal fascia. C. Temporal muscle—its fibers separated longitudinally. D. Bone of parietal crest—origin of temporal muscle. E. Dura incised and its flap retracted. F. Branch of middle meningeal artery divided. GG. Silver clips on artery. H. Cortex. I. Zygoma. J. Extent of decompression 3 in. x 2½ in. K. Location of abscess.

Left sub-temporal decompression and exploration advised for fear another attack might precipitate a medullary edema.

Operation, December 8, 1913, 10 p. m. Left sub-temporal decompression. Usual vertical incision of three inches in length and removal of bone; no complications. Dura quite tense and became extremely tense before incising it.

Dry brain which gradually protruded, though cortex did not rupture. Large dilated cortical veins. Ventricle puncture-needle used to locate abscess—eight to nine times in every direction, but not successful. Finally, needle struck resistant body in the anterior inner portion of left temporo-sphenoidal lobe, and upon incising the cortex and palpation with the finger, a tumor the size of a small orange apparently localized; unable to remove it—too far forwards under shelf of bone. Two rubber tissue drains left in cortical incision. Usual closure. P. O. Temperature rose to 105° upon the fifth day, associated with intense headaches; decompression-opening tense during attacks of headaches and the retinal veins were also rather full. Lumbar puncture revealed pus in the cerebro-spinal fluid, but no bacteria found. (Dr. Callison's report.) Neck rigid; gradually temperature subsided and in four days the fluid was negative.

Owing to the history of syphilis now obtained from the patient and the feeling of the tumor-mass at the operation, four full doses of neo-salvarsan given at intervals of five days. Apparently some improvement; every four days, however, intense headaches and bulging of the decompression-opening would occur and last twenty-four to thirty-six hours; then normal in the intervals with a lax decompression-opening. Fundi were negative in the intervals of comfort, whereas the veins dilated slightly during the attacks and a slight haziness and blurring of the nasal halves of the discs would appear; slight weakness of right side of face now observed and left pupil at times larger than right. No perversion of taste nor of smell. Headaches in the left frontal and left temporal region. (Will remove tumor-mass of the left sphenoidal lobe in a few days—after neo-salvarsan has had a chance to improve patient's condition.)

January 6, 1914: At 7 p. m., patient suddenly had a severe attack of headache, nausea and vomiting, and gradually became stuporous and then unconscious. Several general clonic convulsions occurred with loss of consciousness and a smacking of the lips—"uncinate fits." Decompression very tense—whereas it was always retracted and lax during the intervals of comfort. At 9:30 p. m. seen by Dr. Kerrison and myself. Patient stuporous. Left pupil larger than right. Definite weakness of right side of face and right arm; also possibly right leg. Reflexes very much exaggerated, right greater than left. No Babinski. No nystagmus nor any cerebellar signs. General convulsive seizure again occurred, (clonic alone, no tonic) and a loss of consciousness this time.

Very drowsy; pulse 48; respiration irregular; patient very septic-looking. Immediate operation advised over site of supposed tumor. January 6, 11 p. m.: Left frontal exploration. Vertical incision of two inches over left fronto-parietal area, and bone one and one-half inches in diameter removed. Dura very tense; upon incising it, swollen edematous brain tended to protrude. Upon directing the ventricle puncture-needle inwards and slightly downwards in search of the lateral ventricle, a firm resistant mass obstructed the passage of the needle, until a high degree of force enabled the needle to puncture the dense, thick capsule—allowing  $3\frac{1}{2}$  oz. of greenish-yellow pus to escape under high tension. (Pathological report by Dr. Callison was streptococci.) This abscess apparently occupied the inner anterior part of the left temporo-sphenoidal lobe and must have been the size of an orange. Double glass tubes inserted into the abscess cavity and the usual closure made. The patient became conscious two hours after operation. No convulsions nor marked lowering of the pulse have occurred since the operation. Daily dressings have allowed one-half oz. of pus to escape each time. The decompression opening is not tense but bulges moderately. The fundi are negative. This patient is still in the hospital—very septic from the absorption of the toxins, and it is nip and tuck whether he recovers. It is significant, however, that he has not a meningitis (the cerebrospinal fluid is negative) and he has no signs of medullary compression.

This case is interesting chiefly from the fact that following a radical operation for left mastoiditis an abscess should develop so far forwards and mesially; that it would have been overlooked (in spite of its large size) unless a decompression-opening had been made; that such a large abscess could remain latent apparently—there being few localizing signs of its presence until the second operation; and because of the unique opportunity (I can find no similar case in the literature) to observe the results of a periodic edema of the brain due to the presence of the abscess producing signs of intra-cranial pressure in headaches, vomiting and lowered pulse-rate and as shown by an ophthalmoscopic examination and confirmed by the tense decompression-opening, whereas, during the intervals of comfort, the fundi were negative and the decompression-opening was lax. It is interesting to note also that after the first operation, the patient developed a meningitis—pus being in the lumbar puncture fluid, but no bacteria were found; an extreme form of meningeal irritation. At this time, I thought I had either infected him at the operation or I had punctured



the wall of an abscess, whereas, at the operation, when no pus flowed through the needle I considered it a gummatous tumor from its consistency and apparently confirmed by a weakly positive Wassermann test. This case also illustrates how difficult it is for an abscess situated above the tentorium to produce signs of intra-cranial pressure as registered upon the fundi of the eye; whereas if situated subtentorially, i. e. cerebellar abscess, then the ventricles easily become blocked and the ophthalmoscope would early reveal the pressure-changes of the optic discs in the fundi of the eye.

In conclusion, I wish to emphasize the following points:

A. The diagnosis of brain abscess:—1. The importance of the history, particularly of a previous otitis media. 2. The periodicity of its symptoms and signs—there being intervals of complete relief and comfort. 3. The frequent absence of signs of intra-cranial pressure in the fundus of the eye, when the abscess is situated above the tentorium. 4. The great frequency of abscess in either temporo-sphenoidal lobe, and some of the diagnostic aids for a definite localization of the abscess in them, as well as in the frontal and cerebellar lobes.

B. The treatment of brain abscess:—1. Operation for brain abscess is usually an exploratory procedure. 2. The dangerous and unsurgical procedure of puncturing the dura "blindly" with a needle in search of the abscess. 3. The danger of not only a meningitis, but also of medullary edema is very great in trying to locate the abscess with the needle through a *small* opening and especially through an infected area, such as the mastoid. 4. The advisability of a sub-temporal decompression in abscesses situated above the tentorium—both to lessen the intra-cranial pressure and thereby to avoid impairment of vision and the danger of medullary edema while waiting for the abscess to localize itself and also to lessen the danger of a meningitis. In abscess of the temporo-sphenoidal lobe, the decompression allows a careful exploration of the entire lobe in search of the abscess. 5. In abscess of the cerebellum, the great danger of medullary edema should be avoided by a large opening; if the tension is very high, then the removal of the posterior half of the foramen magnum is essential.

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**THE EFFECT UPON THE ENDOLYMPH OF THE STATIC  
LABYRINTH OF LOCAL AUTOGENOUS  
TEMPERATURE VARIATIONS.\***

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It is common knowledge that the temperature of the animal body increases for certain distances, from the exterior toward the central part. Constantly losing heat from its surface like any other substance of higher temperature than the air, and by means of the cutaneous circulation and evaporation of perspiration, its surface being more exposed to this cooling influence than are the internal organs, the superficial parts maintain a temperature slightly below that of the body in general. The cooling influence of the atmosphere is moderated by the warmer blood from within, supplying fresh quantities of heat, and thus compensating for its external loss. There is not only a difference between the surface and the interior of the body, but the internal temperatures also vary within narrow limits under certain physiological and pathological conditions. There are normally diurnal, muscular activity, digestion or abstinence, glandular, and nervous activity variations of temperature.

The body, as a whole, presents a general standard temperature, *but its heat is produced in each and every separate organ and tissue by local acts of metabolism*, and it follows that *each organ has a special temperature of its own*, which temperature varies according to its activity or repose. Next to the muscles, the glandular organs, when in active secretion, produce the greatest amount of heat. The blood in the hepatic vein is warmer than that of any other part of the body, and in the kidneys, the sub-maxillary, and other glands, there is a rise of temperature during their activity. An increased amount of blood circulating through the superficial parts will cause a rise of temperature at the expense of the blood coming from the interior, and this rise must, of course, be a passive one. No more heat is produced than usual, and the cooling effect of the air is unchanged, but, owing to the increased supply of blood, the cooling effect is less perceptible in the parts subjected to experiment on account of the great quantity of heat brought to this point in a given time. In glandular organs, on the other hand, the rise of temperature during functional activity is an active one, taking place in the

\*Read at the meeting of the Eastern Section of the American Laryngological, Rhinological and Otological Society, New York City, January 7, 1914.



substance of the gland itself, and the blood passing through such organs becomes warmer instead of cooler, on account of the heat received from changes taking place in the glandular tissues.

It is universally admitted that in passing through the general capillary circulation, the blood is slightly lowered in its temperature. This may be but a fraction of a degree, and probably is dependent upon external conditions and the evaporation from the surface of the body. On the other hand, animal heat is generated in greatest part in the general capillary system from metabolic actions, and the heat here acquired is but slightly diminished before the blood enters the circulation, because of the rapidity of the blood currents. If not subject to refrigerating influences, the blood is warmer in the veins than in the arteries. Breschet and Becquerel, by thermoelectric apparatus, found that the cellular tissues were from  $2.5^{\circ}$  to  $3.3^{\circ}$  cooler than muscle and this can be understood if we consider production of heat in general, and more especially in highly organized tissue.

The nervous system plays a most important role in the regulation of animal temperature by modifying the circulation and the metabolism in different parts. The classical experiment of dividing the sympathetic nerve in the neck, thereby dilating the vessels of the ear and causing congestion, by paralyzing the nerve-supply, forcibly illustrates the power of nervous influence. With such a localized increase in the supply of blood, the nutrition is exaggerated and modified, and the temperature of the part may be increased from  $5^{\circ}$  to  $11^{\circ}$  F. above normal. Through the sympathetic nervous system by direct or reflex action numerous curious local temperature variations can be explained. In the human subject, local modifications in temperature are frequently observed. The phenomena of blushing and of pallor from mental emotions are familiar examples of local variations in the circulation, independent of the heart's action, and due to action of the vaso-motor nerve through the sympathetic or the cerebro-spinal nervous systems.

The brain must be a source of heat, as its temperature is higher than that of the arterial blood which comes to it, but compared with either the liver or the muscles, it is insignificant as a source of heat to the body. Insignificant also, in this respect, is the heat evolved from bone, cartilage and connective tissue.

The skin is the great regulator of the body temperature. By conduction, radiation and evaporation, the blood loses most of its heat here, and any dilation of the cutaneous vascular areas will lead to a greater flow of blood through the integument, and this, by in-

creasing the loss of heat, will tend to cool the body; and conversely, constrictions in cutaneous parts or dilations in the splanchnic vascular areas will tend to heat the body by the diminished flow through the skin and the increased flow through the viscera. The secretion of sweat directly regulates temperature by increasing or diminishing the loss of heat, by a greater or a less evaporation.

During exaggerated mental activity and emotional disturbances, Lombard observed that the temperature of the forehead may rise nearly one degree F., and that it was higher on the left side of the head. The tissue, serous and lymph fluids produce little heat, because of their feeble metabolism, and their temperatures are, therefore, the same as their surroundings. Epidermal, horny and bony tissues conduct heat from adjacent structures but they do not appreciably produce heat. The differences in temperature between peripheral and internal parts is indirectly proportionate to the velocity of the circulation.

The human body, being composed of many different substances, unequal amounts of heat will be required to raise these substances to the same temperature. In other words, if the same amount of heat is transferred to various tissues, they will, in a given time, be raised to different temperatures. It follows also that bodies of different temperatures may contain equal amounts of heat.

At a given temperature, the quantity of heat required to raise one gram of a substance one degree C is called its specific heat, the specific heat of water being taken as 1. That property of bodies, in virtue of which they must absorb a certain amount of heat in order to obtain a certain temperature, is called "heat capacity." The specific heat of human arterial blood is 1.031; of venous blood, 0.892; of spongy bone, 0.71; of compact bone, 0.3. The specific heat of the human body taken as a whole is about that of an equal volume of water. The striking fact which we observe in the above data is, that hard bone may be heated to a given temperature more than three times as readily as the body tissues in general, and more than twice as readily as spongy bone.

The conductivity for heat of animal tissue is also of special interest in connection with the observations we are about to report, but investigations upon this subject are few, and not altogether satisfactory. Griess found that fibrous tissues conduct heat with greater facility in the direction of their fibers than at right angles to these, and Landois made similar observations. In the order of their efficiency as conductors of heat, the tissues may be arranged as follows: compact bone, spongy bone, blood-clot, spleen, liver,

cartilage, tendon, muscles, elastic tissue, nail and hair, bloodless skin, gastric, mucous membrane, washed fibrin.

It follows that the compact bone containing the membranous labyrinth is more quickly heated and conducts heat better than the porous bone surrounding it. Tissue containing blood in its vessels conducts much better than bloodless tissue, hence, from a superficial congested area, much heat is given off. Conversely, from areas containing a scanty blood-supply, less heat is given off.

Through the central nervous system dilatations or constrictions of the vessels in various vascular areas may occur, and the great value of the vaso-motor control lies, not in its ability to maintain a general arterial tone, but in its power to modify according to general or local needs the condition of this or that vascular area. Changes in vascular tone of a given area may be altered positively or negatively and quite independently of what is happening in other areas, by: "1, stimuli applied to the spot itself and acting directly on the local mechanism or indirectly by reflex action through the central nervous system; 2, by stimuli applied to some other sensitive area, and acting by reflex action through the central nervous system; 3, by stimuli (chemical blood stimuli acting directly on the central nervous system."\*

As a consequence of local dilatation, there is a tendency to the emptying of other areas, and, at the same time, because of the local diminution of peripheral resistance, a lowering of the general arterial pressure occurs, that is if the total quantity of blood issuing from the heart remains the same.

On the other hand, the effects of local vascular constrictions are the reverse of those of dilations. Less blood now passes through the capillaries in a given time, less interchange takes place between the blood and the tissues, each unit-volume of blood is more deeply affected in its passage, and the blood-pressure, at least in the corresponding arteries, is increased.

The capillaries, possessing no muscular element in their make-up, must submit passively to expansion when a large supply of blood is forced through them, and must shrink by virtue of their elasticity when the supply of blood is lessened or withdrawn. Capillaries maintain the vital equilibrium existing between the blood in the vessels and the extra-vascular tissue, and a normal interchange between these is necessary for the normal life of tissue. This equilibrium is overthrown during inflammations. It may be but a slight dilatation of the arteries and capillaries occurs, the veins

\*M. Foster, Chapter 4, p. 225.

becoming somewhat enlarged. This stage may pass away, or, due to an increased crowding of corpuscles in capillaries and veins, the blood-stream may become slower and slower until accelerated flow gives place to a stasis. There may also occur conditions the reverse of inflammation, in which resistance of the passage of the blood through the capillary areas may be lowered and the circulation in the area quickened. This is seen especially in any tissue with a temporary interruption of the blood-stream and is due to diminished peripheral resistance:

From the foregoing we see how complicated are the mutual relations and co-ordinations of the vascular mechanisms, and though we have but briefly summarized these relations, two facts important to the subject under discussion stand out prominently: 1, the temperature of different tissues or organs may vary, not only between themselves, but also relatively within themselves, from time to time, due to local vascular changes; 2, the temperature of the body as a whole, and of separate tissues and organs is under the control of the central nervous system through the vaso-motor nerves. It is capable of quick changes as between adjacent or distant regions, and as between the two sides of the body in similar organs.

As I stated in the beginning, all this is commonly known, but a true conception of its import is necessary to the understanding of the subject under discussion.

During the congestions accompanying inflammatory processes, the rise of temperature in the part is held to be never above the temperature of the blood in the internal organs. It may, however, be many degrees above that of the parts surrounding it. The rise of temperature one-fourth of an inch below the surface of the body is but a fraction of a degree higher than normal during the application of externally applied heat to 110° or 115° F.

From irrigations in the external auditory canal with water at a temperature of 110° F., the amount of heat reaching the external labyrinthine wall must therefore be small in normal ears, because the drum membrane and external tympanic wall are approximately one-quarter of an inch distant from the internal tympanic wall, behind which lies the static labyrinth, but, nevertheless, this amount of heat is sufficient to influence the endolymph flow, and, as a rule, give rise to nystagmus. It requires a greater degree of cold to depress the temperature of vascular areas than of heat to elevate their temperature, and cold irrigations must, therefore, usually be at least 20° or 30° F. below body temperature, to obtain objective evidences of endolymph movement, and yet I have seen cases of old epider-

matized radicals who experienced distinct labyrinthine vertigo while bathing in ordinary cool river or sea water, and in one case, even cool drafts of air could produce dizziness. Similar cases have been reported by several observers.

I have been able, in one case of chronic suppurative otitis media with complete loss of drum membrane and ossicles, to cause a horizontal nystagmus accompanied by vertigo, within ten or fifteen seconds from the time of beginning irrigations of the external auditory canal. By allowing the fluid to flow but a few seconds at intervals of one-half to one minute, the nystagmus would continue practically only during the flow of the irrigating fluid. At the beginning, the irrigating fluid was  $110^{\circ}$  F., and during each stoppage of the flow its temperature was noted. After reaching  $103^{\circ}$  F., the nystagmus failed to manifest itself for the greater part of a minute, although the irrigation was now made continuous. Then, to my surprise, nystagmus appeared, but now to the opposite side. The patient's head was immediately thrown forward to reverse the position of the horizontal canal, and the nystagmus again reversed its direction, to resume a direction away from the irrigated ear on placing the head in the original erect position, which I should state was at an inclination of about  $30^{\circ}$  backwards from the lateral vertical plane. A thermometer being immediately placed in the external auditory canal, registered  $96^{\circ}$  F. The nystagmus from now on could be elicited after a few seconds' application of the irrigation, and with increasing facility as the irrigating fluid cooled. I appreciate that this is most extraordinary, but I am positive that the phenomena occurred as stated. They were observed also by a nurse and a physician who were assisting me in the experiment. The difference of temperature between the water in the reservoir of the fountain syringe and that issuing from the ear during the minute or two which elapsed between the disappearance of the nystagmus toward the side of irrigation and its appearance directed to the opposite side of the head, was, as stated, approximately  $6^{\circ}$  F. As we can deduct at least  $2^{\circ}$  or  $3^{\circ}$  F. for the loss of heat during the descent through the fountain tube, and as we can allow at least  $1^{\circ}$  for the temperature lost in the auditory canal, there will remain a change of about  $4^{\circ}$  F. between the moment when nystagmic response to the irrigation ceased, to the moment when it reappeared. In other words, while the water in actual contact with the inner tympanic wall was cooling from  $101^{\circ}$  to  $97^{\circ}$  F., above and below these temperature limits there occurred a response toward or away from the irrigated ear. (Toward near  $101^{\circ}$  F., and away from near  $97^{\circ}$  F.)

A careful otoscopic examination of this patient showed that the entire visible external labyrinth wall was covered by hard, thin, scar-tissue with no congestions or granulations showing. On attempting to produce hyperemia by suction with a magnifying pneumatic speculum, little, if any change in the vascularity of the labyrinth wall could be detected. Neither strong suction nor strong compression gave rise to vertigo or nystagmus. The patient, however, has, from time to time, been annoyed by attacks of vertigo. She had not taken particular notice of the direction in which she tended to stagger during these attacks, but thought that it was toward the diseased ear.

I report these observations to emphasize the fact that, under certain conditions, an exceedingly small variation in temperature near the labyrinth is capable not only of producing vertigo, but also of causing nystagmus. I have had, under my care, several cases of vertigo which were accompanied by abnormal vascular conditions in the middle ear, and in several instances the vertiginous attacks ceased after treatment directed entirely to these conditions.

According to the accepted theories of labyrinthine vertigo, it is impossible to conceive of a chronic, unchanging, or slowly changing temperature near the labyrinth as the cause of vertigo or nystagmus, as such conditions would be rendered unproductive of symptoms through readjusting co-ordinations in the higher vestibular nerve centers. Even the effect of sudden variations in the local vascular areas about the static labyrinth will be quickly annulled by these higher centers and by the speedy equalization of the temperature throughout the internal ear. (Thus we may account for the fact that functional vertiginous attacks are intermittent and separately of short duration.) If the temperature variations should occur at the same time with equal intensity and over identical corresponding areas in the static labyrinths on both sides of the head, there should be no sign of vestibular stimulation because of the balancing action of these impulses from both sides of the head. On the other hand, if these variations occur unequally or unilaterally, it would be strange indeed if they did not produce vertigo through the same mechanism as does artificially applied heat or cold, namely, by causing a movement in the endolymph, by changing the specific gravity for a time, in a limited portion of its mass, thereby causing the portion affected to flow upwards if warmed and downwards if cooled. That an unequal flow of the endolymph, as between the two static labyrinths, is the cause of labyrinthine vertigo, there seems to be no doubt, and that this remains true, whether the



flow occurs wholly in one labyrinth or in both, so long as there is a sufficient difference between the impulses aroused from the two sides of the head. This statement may be easily verified by the simultaneous equal or unequal irrigation of both ears and by various methods of rotating the body.

It is extremely difficult by the aid of thermometers or thermoelectric needles to obtain accurate information regarding the temperature of the different tissues of the body, and especially of the more superficial structures, and I appreciate the fact that observations of such temperatures must be tentatively accepted. Nevertheless, as it has an important bearing on the subject, I must produce, besides the facts before mentioned, any that I have been able to elicit along these lines.

Last year I observed a case of mastoiditis on which I had not only done a radical operation, but upon which, owing to a suspicion of brain abscess, I had removed the inner table of the skull, adjacent and posterior to the semi-circular canals, and had elevated the dura on the posterior surface of the petrous bone down to the internal auditory meatus. At the time of the first dressing after the operation, temperature observations were obtained, and to be sure that there was no defect in the thermometers these were compared before and subsequent to their application, and by again sterilizing them and immediately placing them in positions different from those occasioned during their first insertion. The thermometers used were one-half minute, certified instruments. They remained in position for three minutes. The following results were obtained: Rectal temperature,  $100.3^{\circ}$  F.; mouth temperature,  $100.0^{\circ}$  F.; external auditory canal temperature,  $99.0^{\circ}$  F.; middle-ear temperature, (over outer side of labyrinth)  $101.5^{\circ}$  F.; sub-dural temperature (over inner side of labyrinth)  $101.1^{\circ}$  F.

The dura in this case appeared normal. The inner wall of the middle ear, aditus, and antrum, was congested and covered with granulations. The thermometers placed to the outer and inner side of the static labyrinth were inserted deep enough to exclude any cooling effect from the external air, and I believe registered as far as such thermometers could do, the actual temperature of the tissues surrounding their bulbs. A difference of nearly  $.5^{\circ}$  F. is more than one would expect to obtain in this locality, and if I had not used the utmost care, I should doubt the temperature indicated. A temperature of  $.5^{\circ}$  F. would be quite sufficient to cause vertigo and even nystagmus without any lesion within the labyrinth, but if, as in this case, it had obtained for a considerable



length of time, we should not expect to get vertigo or nystagmus because of the correcting and co-ordinating control of the higher centers, and in this little child of 7 years, no history of labyrinth disturbance could be elicited. I record the observations as proof of the occurrence of temperature variations about the static labyrinth.

It is possible to cite many more facts which would lend themselves to a further substantiation of my conclusions as to the production of vertigo through stimulation of the vestibular nerves by autogenously produced caloric reactions upon the endolymph, but that this paper may not, by its length and multitudinous statements, confuse the mind I purposely omit data concerning the effect of heat upon the brain, nerves, muscles and cilia, and upon the etiology of temperature-changes in various pathological states. I believe a sufficient number of facts regarding temperature phenomena have been stated to prove my point, and, conversely, to show that it would be most extraordinary if autogenous variations in temperature about the static labyrinth did not effect the endolymph and in like manner to artificially produced caloric reactions. These conclusions have an obvious bearing upon many problems concerning vertigo and allied phenomena.

• 616 Madison Avenue.

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**Best Method of Removing the Larynx.** R. BOTEY. *Arch, ital, di Laringol.* July 15, 1913, p. 111.

Botey reviews the various methods of laryngectomy, those of Perier, Le Bec, Sebileau, Durant, and Gluck, and states that that of Gluck is the best as shown by a record of sixty-three successfully performed operations without a fatality. A combination of local anesthesia and chloroform narcosis is recommended. Botey objects to fasting after the operation to prevent nausea and recommends good nutrition to sustain the heart. Prothesis is also discussed.

Ed.

## REPORT OF ELEVEN CASES OF DIPHTHERIA AND PSEUDO-DIPHTHERIA—INFECTION IN THE MASTOID WOUND.

Dr. J. J. THOMSON, New York City.

I take the liberty of reporting the following cases of diphtheria and pseudo-diphtheria infection in mastoid wounds because they are unique in my experience, and while I have not carefully looked over the literature of the subject I cannot recollect reading a report of a single case. In the light of this experience I can recall, however, a case treated in 1911 in which I am now sure there was an infection of this kind, but which I did not recognize at that time. As no bacteriological examinations were made of the mastoid I have not included it in the series but will briefly outline it. The patient was a young lady, about 17 years of age, whose mastoid wound followed the usual course for about three weeks, when the granulations assumed a white appearance without distinct membrane formation, and ceased to grow. The glands in the neck on the side of the mastoid were swollen and tender. A few days later the young lady developed a mild pharyngeal diphtheria with positive culture. The infection was extremely mild and the behaviour of the wound exactly similar to that in the cases here reported.

With so many cases occurring to one individual in six months I could not help but feel that I was in some way responsible for infecting one from the other but could find no way to improve on the care exercised in the line of asepsis; cultures from my nose, throat and fingers were negative for these organisms, although they contained other bacteria. It is also a fact that at the same time I was dressing many other wounds and mastoids, and continuously operating on the nose and naso-pharynx without trouble in this respect. During the summer I learned that a colleague had four cases during the same period, which presented the same symptoms and appearance. I was assisted in the bacteriological work by Dr. L. B. Goldhorn, Dr. Callison, pathologist of the Manhattan Eye, Ear and Throat Hospital, and the Mt. Vernon Health Department.

*Case 1:* Mrs. A. E. S., aged about 42 years, had a mastoid operation on the right ear five years ago. The wound healed and she had no trouble until January 1, 1913, when she began to have pain in the ear and some swelling of the old scar. January 3 the infection had progressed so that it was necessary to operate again.

The scar was opened and a large cavity filled with pus and granulations was found, but practically no new necrosis in the bone. There was slight caries in the region of the aditus. Only a simple mastoid was done. The wound was extremely slow in granulating and about January 25 had a peculiar white appearance. The temperature was normal and the patient felt pretty well and was up and around the house. A few days later she began to complain of soreness around the wound and extending into the neck. On January 29 a culture was taken from the wound for the purpose of having a vaccine made. The pathologist reported a pure culture of diphtheria bacilli. The margin of the wound was now quite red and thickened for a distance of one-half inch. The patient complained of slight sore throat, but no membrane could be seen and the discomfort was very slight and soon passed away. Fifteen hundred units of antitoxin were given and produced very little reaction. The wound continued very slow in healing and maintained the white appearance for several weeks. It was packed with strong bichlorid solution and gradually the pseudo-membrane cleared off and the granulations took on a healthy appearance. The experience of finding diphtheria in a mastoid wound was a new one to me and in the absence of clinical symptoms other than the appearance of the wound I doubted the pathological diagnosis and submitted a culture to another pathologist who at first thought we were dealing with a xerosis bacillus, but after plating and cultural tests found several colonies of diphtheria bacilli. The mastoid wound in this case was entirely healed on May 7. Prior to this there was no diphtheria in the neighborhood and I had not seen a case in two years. No cases of diphtheria developed in this family, consisting of parents and two grown children.

*Case 2:* F. M., aged 4 years. First seen January 31, 1913, when he had an acute otitis media in both ears. Paracentesis was done on both. The left ear closed up promptly but it was necessary to do a simple mastoid operation on the right ear on February 2, 1913. On February 16, I noticed that the wound was not doing well, and an area of redness and thickening had developed around the margin for a distance of about one-half inch. A culture was taken and reported to have diphtheria bacilli. The child at all times felt well, had no fever and was active and playful, and there was no pharyngeal diphtheria. Tympanum was dry and the hearing good. On February 21, a sister of the patient had a slight patch of membrane on the tonsil and her temperature was 102°. Culture from this contained diphtheria bacilli. The children were isolated, and the case

of pharyngeal diphtheria presented symptoms for only a few days. On February 22, the child's mother complained of a sore throat and while there was no distinct membrane, culture from the throat contained diphtheria bacilli. The following day the nurse who had taken care of both children became ill with pharyngeal diphtheria with positive culture from the throat and some temperature. Fortunately all the cases were very mild, and the only member of the household who did not develop pharyngeal diphtheria was the boy who had the infection in his mastoid wound, and he showed no symptoms at any time outside of the local condition in the mastoid. The wound was very white and seemed to be covered with a pseudo-membrane which could not, however, be detached. After three weeks' packing with bichlorid solution, this cleared and the wound healed very rapidly. He was discharged April 15, 1913. Antitoxin was administered in all these cases.

*Case 3:* D. B., aged 10; first seen February 14, 1913, with acute otitis media and mastoiditis; mastoid operation on February 17. The wound healed nicely and was entirely closed on March 25, but broke down again in four days and was reopened, when about a drachm of pus was evacuated. Prior to this time the clinical appearance of the wound did not suggest anything unusual nor did it at any time, but within a few days a brother of the patient developed a pharyngeal lesion, a culture from which showed a preponderance of pseudo-diphtheria bacilli. A culture was then taken from the mastoid wound and the same organism was found. The illness of the brother was very mild and he felt quite well in a few days. Antitoxin was given. The child with the infection in the mastoid wound did not develop diphtheria in any other region. The wound was extremely slow in healing but eventually healed perfectly. Subcultures from the organism were injected into a guinea pig but produced no effect on the animal.

*Case 4:* G. C., aged 11; first seen on February 26, 1913, suffering from acute otitis media and mastoiditis. Paracentesis done but it was necessary to operate on the mastoid on March 2. The case ran the usual course until about April 1 when the wound looked rather white and ceased to granulate. The child had no fever nor constitutional symptoms of any kind, and the pharynx was clear. A few days later the characteristic red area developed around the margin of the wound and a culture was made. This contained the pseudo-diphtheria bacillus. The granulations continued slow for a few weeks when the whiteness disappeared and the wound was healed May 22, 1913. No antitoxin was given and there was no

development in the family, consisting of parents and three children.

*Case 5:* L. L., aged 9 years. Operated for acute mastoiditis on March 3, 1913. Pus and granulations were found in the mastoid. The wound did well following the operation for about three weeks when it began to assume the whitish appearance and red infiltration surrounding the margin which I had now learned to be characteristic of diphtheria infection. The middle ear also began to discharge again and continued to do so for one week. The child, however, showed no constitutional disturbance and there was no elevation of temperature and the pharynx was clear. The glands below the mastoid were swollen and tender as they were in all the other cases. The granulations in this case appeared to be slightly necrotic and an attempt to remove the surface did not result in removing any membrane, but on removing the whitened granulations rather excessive bleeding occurred. After about four weeks the granulations assumed a healthy appearance and the wound healed readily, the patient being discharged on May 20, 1913. No antitoxin was used and there were no developments in the family, consisting of parents and one child, age 13 years.

*Case 6:* T. H., aged 3 years; operated for acute mastoiditis on March 10, 1913. The mastoid was filled with pus. This was a particularly delicate child and had only recently recovered from pneumonia, and following the operation had intestinal difficulty for some weeks. He had a slight increase in temperature throughout his convalescence, not going over  $101^{\circ}$ , except on rare occasions and then only on a single day. I make note of this because it is the only case where temperature was a factor without the development of a lesion outside the mastoid wound. The wound followed the usual course for about four weeks or until April 10, when it assumed the appearance already described. The inflammatory infiltration at the margin was more marked than usual and the child was restless for a few days. Culture contained pseudo-diphtheria bacilli and staphylococci. On April 20 a brother of the patient developed a sore throat with a high temperature and cultures contained the pseudo-diphtheria bacilli. The illness was very mild, lasting only a few days. Subcultures injected into a guinea pig produced no ill effect. The mastoid wound made no progress for about three weeks, when it became normal in appearance and healed, and the patient was discharged on May 10, 1913. There was no discharge from the middle ear a few days following the operation. No antitoxin was given to the mastoid case, and no other cases developed in the family.

*Case 7:* I. P., aged 4 years; first seen on February 17, 1913, when he had acute otitis media in both ears. Paracentesis was done and he was not seen again until April 1 when he had an acute mastoiditis on the right side. Operation was performed on the following day. The mastoid was filled with pus. The healing in this case was uneventful and no diphtheria organisms were found in the culture from the wound, but it is reported because on April 26 a sister of the patient developed a sore throat with a high temperature and culture showed the pseudo-diphtheria bacillus. Antitoxin was given to this child but not to the mastoid case. The illness in the sister was very mild lasting only a few days. The mastoid wound was healed on May 28, 1913.

*Case 8:* R. O., aged 9 years; first seen on April 2, 1913, suffering from acute otitis media and mastoiditis on the right side. Paracentesis was done and the tenderness cleared up, but recurred and required a mastoid operation on April 27. The mastoid was filled with pus and the bone was exceptionally necrotic. The patient did well for about a week when he began to run a septic temperature, and had two chills. The blood-count was normal and we were unable to obtain a satisfactory blood-culture, but the clinical symptoms were so characteristic of sinus thrombosis that the sinus was explored and found to contain a clot in the bulb. Cultures taken from the blood of the lateral sinus contained the pseudo-diphtheria bacillus and streptococci. The jugular was ligated and divided below the facial vein. After a week the temperature became normal and the subsequent history was not unusual, the child making a good recovery. The mastoid wound did not develop the appearance of any unusual infection. Subculture injected into a guinea pig caused death in four days and streptococci were found in cultures taken from the blood in the heart.

*Case 9:* Baby T., aged 3 years. This case occurred in the practice of Dr. W. C. Phillips. He did an acute mastoid operation on April 7, 1913, on the right ear. The mastoid was filled with pus. I did the dressings on the case subsequently, but there were no instruments or dressings that were used in the previous cases used in this or in the following case. The wound did well until about May 1, when it showed signs of diphtheria infection. A culture taken contained pseudo-diphtheria and pyocyanus bacilli. Shortly afterward the wound showed the characteristic appearance. The granulations were white and the margins infiltrated, and the glands below the mastoid were swollen and sore. The baby at that time felt well and had no fever. May 9 she developed fever, and on



May 12 suffered from laryngeal diphtheria, requiring intubation. The laryngeal manifestation was mild. She coughed the tube out the first night and had no difficulty in breathing when it was not replaced. May 21, she was breathing well but had some aphonia still. The whiteness had disappeared from the mastoid wound, and it was beginning to granulate normally again. The subsequent healing was uneventful. Antitoxin was given in this case. No other cases developed in this family.

*Case 10:* G. H., aged 9 years; also occurred in the practice of Dr. W. C. Phillips. It was operated upon for mastoiditis by Dr. Phillips on April 3, 1913. I did the dressings afterward. The wound did exceptionally well until May 10, when the granulations ceased to be active, but there was no membrane present. May 19 a culture was taken as the wound began to look suspicious. This contained the pseudo-diphtheria bacillus and bacillus pyocyaneus. May 22 the appearance of the wound was typical, the granulations being absolutely white and the area of infiltration and redness surrounded it for about one-half inch, and the glands below the mastoid were red and swollen. The child was feeling well and only complained of slight soreness around the wound. No temperature or other clinical symptoms were noted. After about three weeks the granulations assumed a normal appearance, and the wound healed promptly. No antitoxin was given. The patient had three brothers none of whom were infected.

*Case 11:* W. J., aged 2 years; first seen October 2, 1913, when he had an acute abscess in the right ear. A paracentesis was done and treatment outlined. I did not see him again until November 6 when he had a large subperiosteal abscess, but complained of no pain and had no chills and no temperature. The child felt well and was playing with his toys. The mastoid operation was performed the next day. The entire mastoid was destroyed, and what appeared at first to be a large perisinus abscess and granulation mass proved to be a mass of polypoid granulations occupying the position of the sigmoid sinus, the outer wall of which was entirely destroyed. On removing this mass of granulations, there was no bleeding. The sinus was slit as low as possible and was followed backward for about an inch when it terminated in a funnel-like closure which resisted further progress. The wall of the sinus itself was about one-eighth inch thick, and there was an obliteration of the sinus toward the torcular end. The jugular was ligated and severed below the omo-hyoid, following which the sinus was curetted toward the bulb, but no bleeding was obtained. The neck-



wound healed primarily, and the only increased temperature the child had was 102° on the day following the operation. Healing and the entire course was uneventful until about November 5, when I noticed that the granulations were not of good character, and granulation ceased, although there was no membrane or anything else to make me suspicious of pseudo-diphtheria infection. A culture was taken, however, and the pathologist reported that there were bacteria resembling pseudo-diphtheria, but he would not commit himself definitely. During this time the child was running an intermittent temperature and was restless. On November 9, a well-marked erysipelatous eruption developed and proved to be the worst case I have ever had, extending over the entire head, face and torso. On November 20, while doing a dressing I noticed in the mastoid wound a couple of suspicious patches, sloughy and white in color and I took a culture. The pathologist reported almost a pure culture of pseudo-diphtheria bacilli. No estimate of the constitutional effect of this infection can be made as the child was still suffering from erysipelas and at the time the culture was taken his temperature was 104°.

During this unusual experience, I took cultures from my nose, throat and fingers, those from the fingers without scrubbing. Cultures from the throat contained staphylococci and various bacilli, none of which were diphtheria or pseudo-diphtheria. Cultures from the nose and fingers contained pure staphylococci.

Briefly analyzing these cases it is interesting to note the following points: 1. The development of so many in a period of six months. 2. The children who had the infection in the mastoid wound developed it in no other region, except in the supposed case where no bacteriological examination was made of the secretion in the mastoid wound, although other members of the family developed pharyngeal diphtheria in some instances. 3. The entire absence of marked constitutional symptoms. 4. The local manifestations were typical and identical in every case. 5. No local therapeutic measures seemed to influence the course of the infection. Bichlorid of mercury, carbolic acid, and cresatin were used, but the cases dressed with plain sterile gauze recovered as well and in the same time. The infection seemed to be self-limited and uninfluenced by local measures. 6. The injection of antitoxin did not seem to influence the course of the infection. 7. Since writing these reports Dr. Goldhorn has told me that he injected thirteen cultures and subcultures into guinea pigs without effect on the pigs, except in the case containing streptococci when death occurred in four days.

40 West Forty-seventh Street.

## SOCIETY PROCEEDINGS.

### NEW YORK ACADEMY OF MEDICINE.

SECTION ON LARYNGOLOGY AND RHINOLOGY.

*Regular Meeting, December 17, 1913.*

DR. WILLIAM W. CARTER, CHAIRMAN.

*(Continued from page 70, January, 1914.)*

DR. HARMON SMITH said that from examination of the growth removed he certainly considered it an inoperable case, in fact he looked upon the majority of extrinsic laryngeal cancers as presenting an unfavorable condition for successful operation, as regards permanent eradication. It had been stated by Dr. Chevalier Jackson, who has had ample opportunity for the observance of all forms of laryngeal cancer, that when the growth has become extrinsic and therefore has gone beyond successful operation by thyrotomy he considered the outcome unfavorable. Dr. Torek had not stated the character of the microscopical findings of this growth, which would be important in considering the prognosis; some of the slow-growing cancerous conditions as well as lympho-sarcomata were more easily eradicated by operative measures than the more malignant forms of such tumors. Dr. Smith said that he would like to know Dr. Torek's prognosis in this case.

DR. HERZIG asked how much time elapsed between the operation and the complete healing of the wound.

DR. TOREK said that the growth was an epithelioma. The prognosis he considered rather unfavorable, for the reason mentioned. It is the usual experience that when a growth has extended beyond the limits of the larynx the prognosis is unfavorable. Although there has as yet been no recurrence in this case and although the patient has gained 18 pounds since operation, he could not regard him as safe against recurrence. The tumor, indeed, was at first an intrinsic growth and has only gradually extended beyond the limits of the larynx. Those that are extrinsic from the start are even more unfavorable. The time required for the complete healing was four and a half weeks. A tiny pharyngeal fistula which had been present up to that time was completely closed, the gastrostomy opening was closed, and the patient swallowed again.

The amount of novocain used requires a little explanation. Novocain is usually quoted as being one-seventh as poisonous as cocain, and besides that the fact that suprarenin is present, which constricts the vessels, explains that for the time being there is very little absorption, and the patient gets very little of the enormous quantity used in that way. Of course, some of the novocain flows out again during the operation, and some is removed with the tumor, so that the sum total is very much less than would appear. The effect of the suprarenin remains for hours, and the absorption being slow the patient can stand more than if the absorption were rapid.

As to the gastrostomy, which Dr. Freudenthal had not seen used before in such cases, Dr. Torek said that he had not heard of it before either, and although he has had the literature examined there does not seem to be any mention of its use in such connection, which seems rather astonishing, for its value seems self evident, and it is surprising that it was not thought of before.

**1. Another Unusual Laryngeal Tumor. Specimen. 2. A Curious Esophageal Experience. Skiagraph and Foreign Body.**

DR. HUBERT ARROWSMITH.

*(To be published in full in a subsequent issue of THE LARYNGOSCOPE.)*

DISCUSSION.

DR. FREUDENTHAL said that he had had the good fortune to see the second case and it was absolutely inexplicable how the pin could have turned around as it did. It is not to be assumed that the esophagus is so wide that the pin could have turned around but whether it happened, as Dr. Arrowsmith suggested, through the act of vomiting or by some other cause, the fact has to be accepted. He had never heard of a similar case.

DR. CARTER: We have just celebrated the fortieth anniversary of this Section, and on that occasion Dr. Delavan presented a very beautiful and artistic tablet to the Society, which has been placed on the walls of this room. He also presented some very interesting and valuable memorabilia bearing on the early history of the Society, and some early models of instruments which have been improved and are still being used. At the time of the anniversary, a brief motion was made to thank Dr. Delavan, but the audience consisted largely of members of the Academy not enrolled in the Section and outsiders, and was not truly representative of the Section. It seems to me, therefore, that it would be a good plan to have a formal motion passed by the Section, thanking Dr. Delavan for these valuable gifts, and I therefore suggest the following:

**Resolved:** That the thanks of the Laryngological Section of the New York Academy of Medicine are hereby rendered to Dr. D. Bryson Delavan for the beautiful and artistic bronze tablet commemorating its fortieth anniversary; for the valuable historical memorabilia; and for the models of instruments used in the early days of our specialty. Be it further

**Resolved:** That the members of this Section recognize these acceptable gifts as tokens of his friendship and loyalty to the Section.

The motion was seconded and unanimously carried.

**Acute Phlegmonous Epiglottitis:** DR. M. D. LEDERMAN.

*(To be published in full in a subsequent issue of THE LARYNGOSCOPE.)*

DISCUSSION.

DR. HENRY L. SWAIN: The experience of no one individual counts for a great deal in this matter, as can be judged from what the reader of the paper has just said,—that he has been twenty years without seeing a case and then had four in a group.

When Dr. Swain's attention was attracted in the same manner to the subject of a group of three cases coming very close together, he bethought himself of some explanation of why they should be so quickly and so

seriously involved, and he recalled a case of real cyst of the epiglottis which had had the habit of filling up at varying intervals. On looking up that case he found that that individual had had a cyst which at four different times had filled up with fluid, and twice broke of itself under similar symptoms as those referred to by Dr. Lederman. He saw the man in the last two attacks. Each time he tried to destroy the cyst so that there would be no recurrence and succeeded the last time, for there had been no recurrence in twenty years. There was a distinct yellowish or greenish stringy mucus such as is characteristic of bronchial cysts. The thorough cauterization which was done the last time had apparently destroyed the lining membrane of the cyst.

He had another case, in the intervening years,—a medical student whom he saw in three different attacks, and here also had difficulty in cauterizing the lining membrane and destroying the cyst; so he had wondered if in most of these cases we did not have to deal with a small cyst of one kind or another. In other parts of the body—in the Meibomian glands for example—patients have such cysts, entirely quiescent, which become infected after having been immune for a long period. He had been looking for such a cyst in a quiescent stage ever since and had concluded that that theory was wrong,—if for no other reason, because there are not many glands in the tissues on the lingual side of the epiglottis. It is a thin mucous membrane.

The whole subject of epiglottitis seems to be closely correlated with that of edema and inflammation of surrounding parts.

He thought that Dr. Lederman's last case was one of peritonsillar abscess of the lingual tonsil. The distinction between the end of the tongue and the beginning of the epiglottis is not very well defined. If one could explain why we have edema, anyway, it would be simpler to explain why this area becomes infected. When there is invasion of the swollen areas by micro-organisms, we have the abscesses. The question of edema had much interested him, and he hoped it would be explained before he died. He would like to know what determines the selection of, and the infiltration in, a given area.

Two of his own cases of epiglottitis without abscess-formation had a definite attack of grip previously, the two patients being two elderly persons who had had some tonsillar inflammation and then this edema,—just as it always follows some infection in the nose or throat. He presumed that a mild inflammation might exist and the patient not know it. He did not believe that epiglottitis would often occur without some previous inflammation. If any one part was more to be blamed than another, it would be the lymphatic tissue of the base of the tongue or in the lateral columns of the pharynx.

The original suggestion that these epiglottic cases were of malarial origin, he thought could not obtain at the time of the year and in the region spoken of by Dr. Lederman. The various other explanations all seem futile. We don't know why they come, but they are interesting and very serious cases when they do occur.

Another point, showing the different methods of therapeutics. Dr. Lederman spoke of applying ice and ichthyol, and they got well. In ede-

ma cases he had the invariable rule, when seen early, to apply leeches. He thinks that helps, but he uses steam on the inside. He finds nothing more comfortable to the patient than the steam atomizer. Dr. Lederman astringes the vessels by cold, and invariably with the steam atomizer adrenalin is in the solutions used. He had used ice in the early stages at the same time as the leeches, but later found no other means so satisfactory for getting the adrenalin and alkalin solutions into the region where one wanted them as a good steam atomizer.

Fischer suggested the possibility of edema being due to an acidosis of the tissue. While this does not explain everything, he has seen good results from the local application of alkalies, including the citrate of soda as one of the salts used.

These epiglottic cases are very threatening and we can never view with complacency the presence of an edematous mass in the throat, at the entrance of the larynx; yet good care and faithful attention will usually win out.

DR. CYRIL BARNERT said that Dr. Lederman had very kindly asked him to take part in the discussion of the paper and he thanked the Section for the courtesy of the floor.

Dr. Lederman has treated the subject of acute phlegmon of the epiglottis so very thoroughly and comprehensively that little is left to be added and nothing to be subtracted. Having seen some eight cases within a short space of time, including two of those reported by Dr. Lederman, a few salient facts had been impressed upon him. Of these eight cases in but two instances did the attending physician have any idea of the location or nature of the trouble, although the condition could easily have been discovered with a laryngeal mirror. The question of diagnosis should be a very easy one. There could be no discussion of the correctness of Dr. Lederman's conclusions as to the etiology, symptoms and treatment of these cases. The infection in the epiglottis and neighboring tissues was apparently a primary one, and no distinct etiological factor was discoverable.

Dr. Barnert said that in his opinion the most important factor in this type of cases was the necessity for eternal vigilance. The laryngologist must devote his entire time to the case, to the exclusion of everything else. Not only must he be ready for a tracheotomy at any instant, should circumstances require it, but he must also examine the larynx every twenty or thirty minutes and take measures to limit or prevent any further induration or edema. Such work cannot be left to an assistant unless he be a thoroughly trained one, and it is the duty of the laryngologist to attend the case until all danger is over.

The Doctor said that he had included in this series two cases because of the great similarity of the symptoms and appearance. One of these was a rapidly growing gumma of the epiglottis which was a mixed infection,\* requiring early incision and curettage and was an instance in which the etiological factor was obtainable. The other was a burn of the epiglottis. A good woman found that she had put into her mouth a piece of potato too hot to remain there, and she chose to swallow rather than to expel it. A spasm of the esophagus deposited the hot morsel upon the



epiglottitis, and when she applied for treatment she was suffering from dyspnea due to an enormous bleb almost entirely filling the larynx. When this was punctured she was relieved. In some of these eight cases the phlegmon was not limited to the epiglottitis. Some were arytenoid and some were at the base of the tongue. All of the cases recovered, and up to the present time no recurrence or sequelae have been noted.

DR. COFFIN said that he had seen his first case of this kind about a month ago. As in the cases which Dr. Lederman had so well described, the epiglottitis was so swollen that he could not see into the larynx at all. The case had been reported to him over the 'phone, when admitted by the house-surgeon, and feeling as Dr. Swain does about steam, he had instructed the house-surgeon to give the patient steam inhalations with benzoin. When he saw the case, his physician was with him and considerably worried over the dyspnea. Dr. Coffin did not feel that a tracheotomy was called for. The man was kept on the inhalation treatment, and argyrol was frequently dropped over the edematous surface. If there were any pus, it must have been absorbed. No incisions were made. The case was discharged quite recovered in about one week's time.

DR. BERENS said that he was surprised to hear that this condition was so common. In his own experience he had seen but one case of phlegmon of the epiglottitis that could really be called such, and that was in conjunction with, if not caused by, a lingual tonsillitis. He had seen a number of cases of acute inflammation of the epiglottitis but they have been in connection with acute follicular tonsils, spreading to the tongue. He had never seen pus in the epiglottitis. It seemed to him that these cases are rather rare.

DR. J. HORN said that he had seen five cases; two of them ruptured spontaneously; one he incised and on one he did a tracheotomy; another was a mixed infection; a broken-down gumma of the epiglottitis. Two of these cases he traced to the habits of the patients. They were rabbis and were slaughtering poultry, and did not take the trouble to clean the knife that they used in slaughtering the chickens, but would hold it in their mouths between the acts. They probably caught the infection in that way.

DR. THURBER said he had seen two cases, one of which was a true abscess of the epiglottitis, and incision brought out a quantity of pus; the other resembled a phlegmon at the base of the tongue but the diagnosis was rather acute thyroiditis and occurred in a woman of 74 years who was taking potassium iodid. He thought the source of infection in these cases was always through a break in the mucous membrane either by a scratch from a hard bit of food or liquids taken too hot.

DR. HERZOG inquired whether all the cases affected were on the anterior surface of the epiglottitis or on the posterior surface.

DR. LEDERMAN, in closing the discussion, said that the reason he had put these experiences in the form of a short paper was for the purpose of differentiating them from the simple edema of the larynx which is sometimes associated with pharyngeal faucial infection. These four cases were a distinct infection of the epiglottitis. In the last case, this pus followed an incision of the epiglottitis. Whether or not the source of the pus was at the junction of the epiglottitis and the base of the tongue was a

question, but the others were distinct involvements of the epiglottis, and there was no previous history of sore throat or anything of that kind. None of these plegmons was on the laryngeal surface of the epiglottis. One was on the side and the other two were on the upper portion of the organ where the incisions were made; but marked edema can and does come from infection of the lingual tonsil in this region.

Perhaps Dr. Barnert may recall another case, which was not included in this paper;—the patient, a woman, had a tonsillitis. That case was similar to the ones reported, but did not go on to suppuration. The patient was a sister of the first case in my report. She had a distinct edema of the aryteno-epiglottic folds,—but that condition cleared up under local applications.

Dr. Abrahams had called attention to the treatment of phlegmonous conditions of the throat with ichthyol.

Dr. Lederman said that he had recently had a case of infection of the faucial tonsil, complicating a nephritis, with extensive edema extending to one side of the larynx, not internal to it. It was a staphylococcal infection and subsided without suppuration (deep incisions were made into the tissue without pus being found). This was a staphylococcus infection, but under elimination treatment for the Bright's disease and applications of ichthyol frequently repeated, the case cleared up.

Dr. Lederman stated that he wished to go on record with the statement that these cases were acute infection of this region, and not secondary manifestations. It is surprising that we don't more often see cases of this kind, when we take into consideration the unlimited number of surgical treatments of the upper air passages—the tissue resistance of these cavities must be remarkable.

**Paper: Hypertrophied Tonsils and Adenoid Vegetations in School Children in New York City. DR. S. JOSEPHINE BAKER.**

(Published in full in *THE LARYNGOSCOPE*, February, 1914, p. 143.)

DR. GUTTMAN inquired whether the inspection is made only by doctors, or by nurses also. With regard to the matter of diagnosis, and indication for operation it largely depends upon who makes the diagnosis.

In regard to methods of operation, he could not say whether this method was advisable. He recalled about four cases in the last few years that were operated upon in hospitals of this city under general anesthesia and which terminated fatally. Dr. Baker mentioned in her paper one case which terminated fatally. All of these deaths had some excuse; in some the diagnosis was enlarged thymus. In others, the anesthesia was given as the cause, etc. In no case was there a post-mortem made. Anyhow, four cases that he knows of terminated fatally under operations done with general anesthesia. In the fifteen or eighteen years that he has been operating, he has had no mishap under local anesthesia. The operation takes only a few minutes—about three to five minutes. In enucleating, the tonsils are taken with the capsules. The pillars on both sides are detached, the wire loop is applied, and the thing is done. It takes only three minutes, and the patient is, as a rule, only momentarily shocked. The shock is not as great as by



putting a child under general anesthesia. It is true that the children sometimes struggle, but the operation requires only a few minutes.

DR. EMERSON said that he had personal knowledge of two patients who died under cocaine anesthesia, and Dr. Guttman had spoken of four cases that terminated fatally under general anesthesia. Considering the greater number that are operated under general anesthesia, those that die under local anesthesia constitute a larger percentage than those under general anesthesia.

DR. HARMON SMITH said that he was confident that he voiced the sentiment of those present in extending to Dr. Baker congratulations upon the valuable paper which she had presented. He was equally pleased that those children having nasal obstruction had been so presented and that such obstruction had not been attributable entirely to adenoids; that in many instances turbinated hypertrophy, septal deviations and high arched palates occasioned symptoms of adenoids and were as detrimental to the progress of the patient as adenoids themselves. Dr. Smith said that he did not think the Doctor should conclude that specialists disagreed so widely concerning the removal of tonsils, from the replies she had obtained, as in the majority of instances printed slips were sent out, asking didactic questions, in which but small space was given for the doctor to answer in, in which case the answer was too brief to give a full and concise opinion concerning the subject at issue. The only way to find out what specialists feel in regard to conditions of this kind is to collect a certain number of articles by leading men and from them collaborate an opinion based upon a more extensive discussion of the subject.

DR. HELLER said that he was particularly pleased to hear what Dr. Baker had said about the manner of inspection and the method of determining whether or not a family could afford to pay, for he happened to be one of the Bronx physicians. There was a time when the nurses were very active in taking the children to the Board of Health Clinics and having them operated upon, in order to make a good record. He knew of a number of cases where the nurses from the schools went to the house and took the children to the Board of Health Clinics and had them operated without giving them a choice in the matter. The antagonism was not so much against what the Board of Health had done as to the manner of doing it. He did not think the medical profession objected to the Board of Health taking these precautionary measures, but there is good reason to object to the children being taken from their homes and carried to the Board of Health Stations, regardless of home conditions. There are a number of hospitals and dispensaries in the Bronx that are as competent to take care of these cases as is the Board of Health.

DR. COCKS said that we are to be congratulated that the Department of Child Hygiene is in such capable hands as those of Dr. Baker. Not long ago, in speaking of this subject, she told him that the physicians of this city do not realize that the Board of Health annually refers a large number of children to them for private adenoid and tonsil operations.

*(To be continued).*

## PHILADELPHIA LARYNGOLOGICAL SOCIETY.

*Regular Meeting, April 15, 1913.*

DR. ROSS HALL SKILLERN, CHAIRMAN.

*(Continued from page 160, February, 1914.)*

The other patient presented unilateral evidence of disease beginning with herpes at the root of the left side of the nose, which traveled down to the tip then up over the vertex of the lambdoid. Later she developed herpes of the cornea, iritis, hypopyon and loss of sight. She was seen by a number of consultants, eleven in all was the statement made, both neurologists and physicians, without staying the process of the disease, and unfortunately opiates had been rather freely administered for the relief of pain until she finally demanded them. This, too, was a sinus case, ethmoid and probably sphenoid, though of this latter, that is to say sphenoid involvement, I cannot speak with absolute certainty.

As to the relationship between tonsillar disease and general bodily disturbances, notably arthritis and endocarditis, this is too well recognized to merit special observation. The relationship between pyorrhea and furunculosis or a low-grade sepsis, seem to be less well known. So, too, with disease of the lingual tonsil which may be the seat of disease, even tuberculous, as in a case reported by Bledert.

I feel that Dr. Daland should be congratulated for bringing this matter prominently before the attention of all of us.

DR. E. B. GLEASON: When there is too free respiration the results may be equally as disastrous. In tuberculous, the nose has been found to be a mere shell. As to general infections following tonsillar conditions I am still a "doubting Thomas." In only one case that I am aware of could rheumatism be traceable to peri-tonsillitis. I have been asking in the hospital about cases of rheumatism following tonsillitis, and they reported result of pressure within the nose and are relieved by 2 per cent solution of cocaine. Speaking of infections, I would refer to latent empyema of the maxillary antrum. Individuals with this condition often claim perfect only one case in many years, and then only after the tonsils had become normal. A mass of pus from side of capsule is of rare occurrence; a mass of pus in alveolar process is very common. Much more plausible, systemic conditions result of alveolar abscesses. There should be a careful examination of the teeth. Tubercular tonsil is not common. If a child is mentally defective the removal of tonsils and adenoids does not improve the condition, a fool still remains a fool. Whatever gain follows the operation is the result of improved hearing. Eye headaches are worse at night, and nasal headaches almost invariably worse in the morning and health, and after cured say they never knew what good health was before.

*Regular Meeting, May 20, 1913.*

**Anatomy of the Nose, Naso-pharynx and the Pharynx, together with Demonstration of Actual Specimens and Lantern Slides.** DR. A. HEWSON.

**Technic of local anesthesia in submucous operation.** DR. MACKENZIE.

**Technic of Local Anesthesia in Submucous Operation.**

Dr. Mackenzie described his technic of local anesthesia in the submucous resection of the nasal septum, by the use of 20 per cent solution of cocaine and then Schleich's solution. He uses one-inch gauge strips for approximating the denuded surfaces and for the control of hemorrhage, instead of the use of cotton splints, and urges that the use of cotton in nasal surgery be abandoned.

DISCUSSION.

DR. HERBERT M. GODDARD: It has been my pleasure to witness several of Dr. Mackenzie's operations on the nasal septum. I have found that I have been able to get very good approximation of the denuded surfaces by the use of Simpson's splints and the day following the operation remove a portion of the splint on each side. This allows the patient greater freedom of breathing. In case of persistent bleeding I have found that strips of one-inch gauze controls of hemorrhage better. There are two very important rules for the beginner to remember and they are to be sure (1) that the primary incision is through to the cartilage and that (2) the incision is well anterior to the deformity.

DR. E. B. GLEASON: Packing tightly with long strips of gauze I believe to be generally the cause of sepsis. Whenever I am obliged to pack the nose I always feel that my patient is in considerable danger of at least a slight sepsis and some soreness of pharynx and tonsillar region. I remember one or two years ago of reading an article in THE LARYNGOSCOPE which reported a case, after tonsillectomy, of phlebitis of the internal jugular, the infection extending up into the lateral sinus and forward into the cavernous sinus. One eye was lost, and ultimate recovery with some sight in the other eye. Good approximation can be obtained by the use of Simpson's splints. As regards the method of injection of Schleich's solution, I cannot help but think that this method is open to very serious objections. Here we have many holes, and when the mucous membrane is stretched in denuding there is danger of the instrument slipping through.

Cocain Poisoning. I think it would be a good idea if we should establish a standard method of cocaineization. I would suggest first a 2 per cent to 4 per cent cocaine solution locally applied, then packing with 1-1000 adrenalin solution, then rubbing with saturated cocaine solution, the adrenalin preventing the absorption of a large amount of cocaine. I recall one of my cases of cocaine poisoning where the patient lost consciousness. However, the symptoms somewhat subsided after the use of strychnia. Practice on the cadaver is of little use on account of the ease of separation of the muco-perichondrium. For the separation of adhesions, Carter, of New York, has invented a curette and raspatory which I have found to be of great service.

DR. R. F. RUPATH: The injection of Schleich's solution has advantages, particularly in those cases where there are angular deflections, but in the majority of cases it is not essential. For packing the Simpson splint is to be preferred to gauze packing, it is easier of introduction and removal, and rarely is there post-operative bleeding. I do not believe that we place sufficient importance on this operation as is warranted, and in case any other operation is needed on the nose it should be done before the submucous resection, and not at the same time.

DR. WM. A. HITSCHLER reported a case of perforation in removing the cartilage with the Ballenger knife. The cartilage was kept in normal salt solution until completion of the operation, and then placed between the layers, completely closing the perforation. On the eighth day a redness appeared on the edge of the cartilage, and the next day it was covered with crusts. Later the perforation was revealed, although the cartilage did not come away; evidently it must have moved upwards.

DR. GEO. W. MACKENZIE (closing the discussion): Infection after the submucous resection of the septum is favored under certain conditions as follows: (a) Acute coryza, a fact which can readily be understood. (b) Acute infection of one of the sinuses is very prone to favor an infection of a wound of the septum. (c) Infection of the adenoids or tonsils. A patient need not manifest an acute infection of these glands, for instance any old pathologic condition, though temporarily quiescent, the effect of an operation on the septum with incident packing of the nose may be sufficient cause to awaken an acute pathologic condition in them and from this focus an infection may readily spread to a wound of the septum. (d) Undue injury or lacerations of the septum favors infection. (e) The combining with the submucous resection, one or more operations upon the turbinates. (f) A pack in the nose, but only when combined with one or more of the conditions previously mentioned. A gauze pack in the nose, is far safer than a cotton or other more or less impervious dressings. For instance, take a piece of cotton and insert it into the canal of a running ear for some time, when you come to remove it you will observe that the side presented inwardly is wet and caked with discharge, while the side externally exposed is dry; on the other hand if you insert a piece of gauze, when you come to remove it, you will find it more or less uniformly wet with discharge. The cotton has behaved like a cork, while the gauze acts as a wick.

Next, as to the application of adhesive strip to hold the dressings in place, it is purely surgical, and is practiced by surgeons in general, no matter upon which part of the anatomy an operation has been performed. Personally I came to the use of adhesive strips quite independently. A patient upon whose septum I had operated presented himself on the second day with all dressings removed. Immediately I determined to fix the dressings in such a manner as to deter any patient upon whom I operated doing this same thing. The idea appealed to other surgeons who saw me do it, and they adopted it also.

I have never had any serious infection following a tear of the mucous membrane, for the reason that I have the patient blow the nose before packing which replaces the flap into its normal position. Then the nose

is packed in a manner to hold the flap in place until healing takes place.

The toxic effect of cocain is reduced if the patient's stomach is full. We are all aware of the fact that toxic substances produce a greater degree of toxicity when the stomach is empty than when full. You will recall the effects of alcohol and tobacco on an empty stomach. As an antidote there are probably none better than nitro-glycerin and amyl nitrite to which I have already referred.

The amount of cocain absorbed from the Schleich solution injected cannot exceed a quarter of a grain. The whole 100 cc. of solution contains but a grain and a half. Not more than one-sixth of the solution is used, therefore not more than one-quarter of a grain of cocain.

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*Regular Meeting, December 16, 1913.*

DR. E. B. GLEASON, CHAIRMAN.

**Latent Mastoiditis.** DR. O. A. M. MCKIMMIE.

DR. MCKIMMIE took up in detail all the different forms of typical mastoiditis, paying particular attention to those forms of inflammation of the mastoid where the clinical symptoms were altogether lacking or so obscure as to make diagnosis doubtful or impossible. The different complications were also handled in detail, where such symptoms were obscured or latent. Mastoiditis existing for weeks and months without being suspected and yet where great destruction of the temporal bone had taken place was described and, as far as possible, rules laid down for guidance in making the diagnosis. A general classification of the few symptoms that could be depended upon followed with a discussion as to their relative value. Dr. McKimmie closed his paper with detailed reports of twelve of his most instructive cases, illustrating the different types of this obscure condition.

DISCUSSION.

DR. S. MACCUEEN SMITH: At times we operate when symptoms are not quite sufficient, or in absence of many symptoms, basing our judgment on experience, a matter of intuition. Two days ago I saw patient at Germantown Hospital. Had been semi-conscious for two weeks; temperature up to 105°, high for an aural case; under treatment for malaria. Quinin had been administered in large doses; blood examination inconclusive; suddenly developed running ears; patient thought dying; no evidence of mastoid disease; no drooping of canal during lucid moments, no pain over mastoids by pressure or percussion. Exploratory operation suggested and approved. Cortex removed, pus welled out, large sequestrum removed—dura exposed, red and swollen; no pulsation; perisinusitis. Radical mastoid before incising dura—a latent case. Had been well-treated, no one would have suspected it but must have started with ear trouble. Dr. Smith is placing more dependence on the x-ray the past few years. This is a highly specialized subject and requires considerable skill for intelligent interpretation of the plates. Middle-ear

involvement from naso-pharynx in practically all cases of primary mastoiditis. In children better drainage afforded by shorter and wider tube; with patulous tube, infection may get to mastoid cells, the drum remaining clear. Sudden rise of temperature more valuable than any other symptom. At Jewish Hospital, a child convalescing from pneumonia, about to get out of bed, on liberal diet, suddenly had temperature of 106°, up for eight to ten hours and as suddenly dropped, tube short and large, fluid under pressure, tympanic cavity evacuated into pharynx—no thought of ear trouble. Normal temperature for eight days, then sudden rise, remaining elevated, tube blocked, spontaneous rupture of drum.

Patient, 65 years; vague symptoms for six months, pain over mastoid would disappear and return at intervals; pain over right side of face; never had ear trouble; found exterior necrosis. Girl, 17 years, pain over mastoids, no evidence of middle-ear disease, treatment for three weeks, no improvement. Mastoidectomy, extensive necrosis, middle-ears not involved; membrane and ossicles not interfered with; large sequestrum removed; presumably primary mastoiditis. Objective tinnitus like ticking of watch, both objective and subjective tinnitus ceased during full breath; synchronous with heart beat; lost when diagnostic tube used; not modified by mastoidectomy; cause—spasmodic contraction of the palatine and pharyngeal muscles. Dr. Alfred Stengel much interested in case; had girl under observation at his office; had mechanical device constructed to observe muscular action. Girl refused to continue visits unless she received compensation; was lost sight of.

DR. G. W. MACKENZIE: Dr. McKimmie has presented an excellent paper on an important topic which well repays me for attending the meeting. As pointed out by Drs. McKimmie and Smith there are cases of obscure mastoiditis which puzzle us at times as to what line of treatment we should follow. I am reminded of an admonition first advanced by Prof. Alexander of Vienna, and that is "in case of doubt, operate, for in such cases the vast majority show at the operation considerable destruction in the mastoid." This has been borne out by my own experience.

In those frank cases with external swelling and displacement of the auricle with fever, pain, tenderness, etc., occurring in the course of an acute middle-ear suppuration, particularly when these symptoms have appeared suddenly after a few weeks of apparent improvement of the primary middle-ear suppuration, there should be no doubt of the indications for operation. On the other hand, a child with a previously lowered vitality, one who reacts but poorly, may manifest relatively few symptoms. The temperature may be normal or subnormal. In such a case we may not be aware of mastoid complications until graver intracranial complications have developed.

Besides, the anatomical structure of the temporal bone varies considerably, so that in one case the external corticalis may be relatively thin compared with the remaining walls of the middle ear and mastoid cavity; while in another case the opposite conditions may exist.

In still rarer cases we may find a so-called primary mastoid abscess. That is one in which the tympanic membrane is intact. I have found a number of such cases and they are usually bad ones. Careful study



of these cases will usually show the membrane of the affected side to be dull (surface uneven); the light reflex is absent. A casual examination of the one ear alone may mislead one, but not so if a careful examination of both ears be made.

I should like to emphasize what the essayist has said concerning facial palsy, dizziness and subjective noises. In all cases presenting one or more of these symptoms I should advise prompt surgical intervention. The dizziness is the signal to go in and give vent to the pus for fear of more serious internal ear involvement that is liable to follow.

I do not consider the observations of spontaneous nystagmus, with the patient looking to the side, of any value, for normal individuals will show more or less physiologic nystagmus when looking to the extreme right or left. Spontaneous nystagmus as a symptom of internal-ear affection is manifested when the patient looks straight ahead. To be sure it will be more pronounced when looking to the side of the nystagmus and less pronounced when looking away from it.

My objection to determining the presence or absence of spontaneous nystagmus of vestibular origin in the side positions is that it is not always so easy to direct the patient's gaze at the same angle on the two eyes, and any variation of angle to the two sides will, in normal individuals, cause a difference in the intensity of the physiologic nystagmus and may easily be interpreted as a pathologic difference.

The caloric test alone is not sufficient upon which to base diagnosis. It is purely a qualitative one and merely tells us whether the inner ear is reactive or not. For a more exact determination of the degree of pathologic over-or-under-irritability we are compelled to make accurate tests by turning and galvanism.

The fistula test is of relative importance only. This fact was brought out forcibly in an able paper on compression and aspiration nystagmus by Alexander and La Salle. For instance a fistula of the labyrinth may give a negative sign in cases of destroyed labyrinth, in cases of reactive labyrinth with excessive patulousness of the Eustachian tube, in cases of foreign bodies and cholesteatoma of large size, etc. On the other hand, the sign is frequently present in cases of acute middle-ear suppuration with the Eustachian tube blocked and membrane intact. Normal individuals may even have vertigo from the use of the Politzer inflation or the pneumatic massage.

What gives the sign increased value is when the patient manifests by aspiration a nystagmus in the opposite direction but of less intensity to that produced by compression.

I thank the essayist for his most instructive paper.

DR. C. P. ADAMS reported a case of latent mastoiditis, boy age 10. In 1911 had been operated on three times, twice for post-auricular abscess and later for a simple mastoid. First operation result of scarlet fever. 1912, adenoidectomy.

Present history: November 29, swelling back of ear, like furuncle; periostitis from furuncle in external canal; both incised; one week later fever and drowsiness; admitted to hospital; temperature 106°, leucocytes 25,000; operation following day; sinus communicating with antrum; cleared antrum and middle-ear; exposed lateral sinus; pus under dura



wiped out; removed tip. There had been no discharge since previous operation two years ago.

DR. EUGENE L. VANSANT said he was indebted to Dr. McKimmie for formulating his views. He heartily agrees with what Dr. Smith has said—sudden rise in temperature favors operation. If these cases were seen through their history they would not appear so vague. They have been in the hands of practitioners not particularly versed in ear trouble.

DR. FIELDING O. LEWIS: Patient had frequent tinnitus, nose filled with polyps and disease of middle turbinate, operation followed by relief of symptoms. Came in later with nausea, vertigo and marked tinnitus; ear negative. Wonders if this is a case of latent mastoiditis.

DR. BENJ. D. PARISH said we require more definite knowledge as to when to operate. At times too early, then difficulty in healing. Wait for demarcation to wall off certain amount of infection. Wait eight days before you open new area of infection. In chronic cases with urgent symptoms operate at once. Case five years ago: Acute otitis media; paracentesis of drum; healed in five days; dismissed apparently well; one month later fleeting pain; drum normal; lumen narrow on operated side; no tenderness; hearing normal. During day apparently well; in evening, acute pain. Walled off area of pus. Advised exploratory operation; three cells broken down and few drops of viscid pus found. Typical of latent mastoiditis.

DR. G. W. COATES: He has had the same experience as Dr. McKimmie and Dr. Smith have had with the x-ray. While often it is of the greatest assistance in making a diagram in one of the latent cases, yet it is sometimes misleading, owing to the wrong interpretation being placed on the plate. In the finer x-ray work, in which class that of the mastoid should surely be placed, it takes an expert to read the plates and determine their meaning and even then Dr. Coates has had one or two cases where at operation the exact reverse of the x-ray diagnosis was found.

Cases of latent mastoiditis with severe brain complications frequently give no signs of their presence. One case of the speaker's was that of a waiter, a man of 45 years, who was treated for several weeks for a sub-acute discharge, with the very vaguest symptoms referable to the mastoid. It was opened, however, and found extensively diseased; the dura of the middle fossa exposed; and as it had a suspicious appearance it was incised and the brain searched, when an abscess the size of a pigeon's egg was located an inch from the surface and evacuated. Quick and uninterrupted recovery took place. There were no symptoms noted referable to brain abscess and few even to the mastoid.

DR. E. B. GLEASON: An important point is to endeavor to formulate time to operate in acute as well as in chronic cases. Most reliable symptom is sagging of posterior-superior portion of canal. Mastoid beginning during the first week of an acute infection will get well without an operation; beginning between first and second week often will not get well without taking a look; we read of operation becoming less and less as they become more common. Do not wait too long; take lid off the box and see what you find.

Dr. McKimmie (closing): Has reputation of being radical; has seldom operated when not glad he went in. Operate early in presence of any definite symptoms. General surgeons are not radical in this particular field; their cases do well for a time but later must again be operated on and everything acting as a container removed. Extensive disease can go on for weeks, months or years without distinct manifestations of middle-ear disease. Twenty-five cases with no distinct mastoid symptoms were operated on because of one of twelve symptoms or of combination of them.

Dr. McKimmie was very much interested in Dr. Mackenzie's investigations of the labyrinth.

## BOOK REVIEWS.

**The Catarrhal and Suppurative Diseases of the Accessory Sinuses of the Nose.** By ROSS HALL SKILLERN, M. D., Professor of Laryngology, Medico-Chirurgical College; Laryngologist to the Rush Hospital, etc. Pp. 389, illustrated. J. B. Lippincott Company, Philadelphia, 1913. Price, \$5.00.

This is the first American text-book published limiting the field exclusively to diseases of the accessory sinuses of the nose. The inspiration of the author has been to present a handbook setting forth in the English language a thorough and detailed account of the nasal accessory sinuses, their anatomy, pathology, surgery and therapy, and in this endeavor he seems to have been admirably successful.

While there is much in this volume that reflects the work of such pioneers as Hajek, Luc, Logan-Turner and others, there is every evidence of the serious study and energetic work of the author.

The time is opportune for a limitation of special work and special literature even within our own speciality of oto-laryngology and this volume is a practical and satisfactory evidence of such specialization.

**Allgemeine Akustik und Mechanik des menschlichen Stimmorgans. (Acoustics and Mechanics of the Voice.)** By DR. ALBERT MUSEHOLD, Berlin. Pp. 134 with 19 photographs of the human larynx on 6 plates, and 53 illustrations in the text. Verlag Julius Springer, Berlin, 1913. Price, M. 10 net.

The prime objection to previously published monographs on the "Acoustics and mechanics of the voice" has been the unnecessary details and presentations of theories, thereby discouraging the busy readers from closer study of this important subject.

This little volume of 134 pages briefly and graphically describes the acoustics and mechanics of the voice in fourteen well-considered chapters. Here may be found a description of physical acoustics and of the theories of wind and reed instruments, the anatomy and physiology of the resonating chambers, the anatomy of the larynx, and the mechanical function of the intrinsic and extrinsic muscles of the vocal apparatus.

Then follow chapters on the general phonetics of speech and song, a consideration of registers, of the form of the epiglottis, excursions of the vocal cords, and a presentation of simple laryngoscopy, stroboscopy and laryngeal photography.

The author draws his final chapters from photographic images taken of the larynx during various types of phonation and in various positions. Nineteen excellent photographs are used to present this phase of the question and corroborate the author's observations.

# 1913

## Index-Medicus and Digest of Oto-Laryngology.

Note:—All titles marked with a \* are abstracted under their respective numbers in the second section. All articles marked with a † have appeared as original papers in THE LARYNGOSCOPE and are referred to as such. Abstracts prepared by the collaborators of THE LARYNGOSCOPE are signed as such. Author's abstracts are signed A. A. Abstracts signed ED. have been prepared at the home office of this journal. Those signed Ex. have been published in other journals.

Authors are requested to notify us of errors or omissions.

### I. NOSE AND NASO-PHARYNX.

#### Septum.

- \*1 AYNESWORTH, H. T. Submucous Resection of the Nasal Septum with Report of 100 Cases. *Jour. Ophth. and Oto-Laryngol.*, Feb., 1913, p. 40.
- 2 BEARMAN, G. P. Closure of Perforation of Septum. *W. Can. Med. Jour.*, Oct., 1913, p. 445.
- 3 BOTEY, R. Submucous Resection of the Nasal Septum. *Therapia*, Feb., 1913.
- \*4 CHAMBERLIN, W. B. Causes of Perforation of Nasal Septum. *O. State Med. Jour.*, April, 1913.
- 5 COOK, W. A. Submucous Resection of Nasal Septum. *Okla. State Med. Assn. Jour.*, Nov., 1913.
- 6 CORWIN, T. W. Submucous Resection of Nasal Septum. *Jour. N. Jersey Med. Soc.*, Nov., 1913.
- 7 FERGUSON, W. Personal Experiences with the Submucous Resection of the Nasal Septum. *Am. Medicine*, Jan., 1913, p. 44.
- 8 FRUEHWALD, V. Mucous Cyst of the Nasal Septum with Post-operative Nasal Hydrorrhea. *W. klin. Wchnschr.*, 1913.
- 9 GOLDMANN. Indications for Submucous Resection of the Septum. *Klin.-therap. Wchnschr.*, Feb. 10, 1913.
- \*10 GUENTZER, J. H. Tuberculous Granuloma of Nasal Septum with Lupus of External Nose. *Trans. N. Y. Acad. of Med.*, March 26, 1913.
- \*11 HEERMANN. Septal Resection in Childhood and the Prevention of Perforation and Flapping. *Ztschr. f. Laryngol.*, Vol. 6, Heft 2, 1913, p. 239.
- †12 JOHNSTON, R. H. Tumors of the Septum. *THE LARYNGOSCOPE*, Aug., 1913, p. 834.
- 13 KATZ, L. Isolated Fracture of the Cartilago Quadrangularis. *Ztschr. f. Laryngol.*, Bd. 6, Heft 5, 1913, p. 791.
- \*14 KNEEDLER, G. C. Submucous Resection. *Pittsburg Med. Jour.*, July, 1913, p. 27.

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- \*16 LABOURE, J. Malignant Tumors of the Vomer. *Rev. hebdom. de Laryngol.*, Jan. 4, 1913, p. 1.
- 17 MACFARLAN, D. On Undertaking Submucous Septum Work. *Jour. of Ophth., Otol. and Laryngol.*, July, 1913, p. 265.
- 18 MACFARLAN, D. Relative Frequency of Deflected Septum. *Jour. of Ophth., Otol. and Laryngol.*, Aug., 1913, p. 315.
- \*19 MACKENZIE, G. W. Complications That May Arise During or After Operation for Correction of Septal Deviations. *Jour. A. M. A.*, Sept. 27, 1913, p. 1197; and *Ann. of Otol.*, Dec., 1913, p. 1020.
- \*20 MACKENZIE, G. W. Septal Deviations. *Hahnemann Monthly*, Jan., 1913.
- 21 MACLAY, O. H. Odd Cases of Nasal Deflection with Suggestion as to Treatment of Nasal Adhesions. *Ann. of Otol.*, Sept., 1913, p. 623.
- 22 MAGRUDER, A. C. Deviated Nasal Septum—Its Influence on General Health; Surgical Treatment. *Colo. Med.*, March, 1913.
- 23 MALHERBE, A. Submucous Resection of Septum. *Bull. med.*, Feb. 5, 1913, p. 119.
- 24 MCHENRY, D. D. Deformities of the Nasal Septum and Their Treatment. *Med. Herald*, May, 1913, p. 100.
- 25 MENIER. Tuberculous Perforation of the Nasal Septum Following Operation. *Arch. intern. de Laryngol.*, May-June, 1913, p. 830.
- 26 MILLER, C. M. Some Indications for Submucous Resection of the Nasal Septum Other Than Apparent Obstruction of Nasal Respiration. *Va. Med. Semi-Monthly*, Oct. 10, 1913, p. 323.
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- 29 PRENDERGAST, D. A. Sloughing of Nasal Septum After Submucous Resection. *Cleveland Med. Jour.*, Feb., 1913.
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## V. DIPHThERIA AND THYROID GLAND.

## Diphtheria.

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## VII. MASTOID AND INTRA-CRANIAL COMPLICATIONS.

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## DIGEST OF OTO-LARYNGOLOGY.

### 1

**Submucous Resection of Nasal Septum with Report of 100 Cases.** H. T. AYNESWORTH, *Jour. Ophth. and Oto-Laryngol.*, Feb., 1913, p. 40.  
Abstracted in THE LARYNGOSCOPE, July, 1913, p. 800.

### 4

**Cause of Perforation of the Nasal Septum.** W. B. CHAMBERLIN, *O. State Med. Jour.*, April, 1913.  
Abstracted in THE LARYNGOSCOPE, Nov., 1913, p. 1081.

### 10

**Tuberculous Granuloma of Nasal Septum with Lupus of External Nose.** J. H. GUENTZER, *Trans. N. Y. Acad. of Med.*, March 26, 1913.  
Abstracted in THE LARYNGOSCOPE, Oct., 1913, p. 1023.

### 11

**Septal Resection in Childhood and the Prevention of Perforation and Flapping.** HEERMAN, *Ztschr. f. Laryngol.*, Vol. 6, Heft 2, 1913, p. 239.  
Heermann feels that resection in children, if not too extensive, can be successfully performed under local anesthesia, and does not interfere with the development of the nose. Septal spines should be removed by the submucous method and not by the saw.  
Ed.

### 12

**Tumors of the Septum.** R. H. JOHNSTON.  
Original contribution to THE LARYNGOSCOPE, Aug., 1913, p. 834.

### 14

**Submucous Resection.** G. C. KNEEDLER, *Pittsburgh Med. Jour.*, July, 1913.  
Kneedler has replaced the cartilage in fifty-eight cases of submucous resection without a single loss of cartilage or complication. He removes the cartilage *in toto* with a swivel knife and keeps it in a normal salt solution of 100° until after the operation. Then the cartilage is trimmed with a knife, made straight and inserted between the mucous membrane, and the initial incision closed with a few stitches. The nostrils are then packed.  
Ed.

### 16

**Malignant Tumors of the Vomer.** J. LABOURE, *Rev. hebdomadaire de Laryngol.*, Jan. 4, 1913, p. 1.

Nasal and naso-pharyngeal tumors are very often benign,—adenoids in infants and fibroma in adults. But sarcomata or epitheliomata occur at all ages, they develop on the septum, vomer and especially on the ethmoid. Laboure discusses the symptoms and points out four procedures: (1) anterior rhinotomy, (2) total mobilization of the nose, (3) operation through the latero-nasal route according to Moure's technic, or (4) resection of the palate.  
Ed.

**19**

**Complications of Operation for Septal Correction.** G. W. MACKENZIE  
*Jour. A. M. A.*, Sept. 27, 1913, p. 1197.

Mackenzie discusses cocaine and epinephrin poisoning, air embolism, incomplete and improper primary incision, adhesions, old and other fractures, perforation, hemorrhage, packing, infection, flattening of nose, hematomas, erysipelas and empyema. Ed.

**20**

**Septal Deviations.** G. W. MACKENZIE, *Hahnemann Monthly*, Jan., 1913.

Mackenzie considers the two types of septal deviations (developmental and acquired) from the practitioner's point of view and indicates the means of correcting them. Ed.

**30**

**Reorganization of the Cartilage of Septum After Submucous Resection.**

M. A. SSAMOYLENKO, *Ztschr.-f. Laryngol.*, Bd. 6, Heft 1, 1913, p. 7.

Abstracted in *THE LARYNGOSCOPE*, June, 1913, p. 709.

**34**

**Nasal Hemorrhage Following Turbinectomy in a Hemophilic.** L.

EMERSON, *Ann. of Otol.*, March, 1913, p. 183.

To control the hemorrhage Emerson used 2,000 units of diphtheria antitoxin, then 20 ccm. of blood serum obtained from the patient's brother, which was injected three times a day. Hemorrhage was greatly reduced. Then 20 ccm. of blood serum obtained from a healthy man was injected three times a day for three days and then once daily for a week. Recovery. Though about a pint of serum, over half from a man not related, was used, no unfavorable symptoms developed. Ed.

**40**

**Prevention of Adenoids.** W. BRADY, *Med. Rec.*, May 24, 1913, p. 937.

Abstracted in *THE LARYNGOSCOPE*, Jan., 1914, p. 24.

**45**

**Cardiac Arrhythmia Cured by Removal of Adenoid Vegetation.**

DELNEUVILLE, *Le Scapel*, March 2, 1913.

The author discusses the reflex disorders due to nasal affections apropos of a case in a child of two years, presenting cardiac disturbances. Immediately after adenoid operation all symptoms were ameliorated and after seven months they entirely disappeared. Ed.

**47**

**Certain Dangers of Adenoidectomy.** W. E. GROVE, *Bull. Johns Hopkins Hosp.*, April, 1913.

Abstracted in *THE LARYNGOSCOPE*, Oct., 1913, p. 1009.

**52**

**Removal of Adenoids and Mouth Breathing.** H. M. McCLANAHAN, *Arch. of Ped.*, Oct., 1913, p. 721.

In 28 of the 52 cases the relief from mouth breathing was either complete or greatly improved; in 24 nasal inspiration was not improved.

In 20 of the 24 cases this was due to anatomic conditions in the superior maxilla. All these cases presented bad coaptation of teeth, mal-development of superior maxilla, vomer, palatine and turbinal bones, with retraction of the mandible. One can determine beforehand whether adenoidectomy will afford relief, and where it will not the parents should be advised to supplement the operation by corrective orthodontia. Ed.

## 54

**Follicular Conjunctivitis; Its Relation to Adenoids.** T. E. OERTEL, *Ga Med. Assn. Jour.*, Feb., 1913.

Oertel states that there is a causal relation between adenoid hypertrophy of the laryngeal lymphatics and so-called adenoid hypertrophy of the lymphatic follicles of the conjunctiva. He states he is able to make a diagnosis of adenoids and probable hypertrophy of the faucial tonsils by the characteristic granules of the follicular conjunctivitis. Operative removal of the adenoids and hypertrophic faucial tonsils usually promptly causes the follicular conjunctivitis to disappear. Ed.

## 72

**Operations on Nose in Treatment of Headache.** FROESE, *Deut. Med Wchnschr.*, May 15, 1913.

Abstracted in *THE LARYNGOSCOPE*, Dec., 1913, p. 1135.

## 80

**Pathology and Treatment of Nasal Reflex Neurosis Due to Tuberculum Septi.** O. LEVINSTEIN, *Ztschr. f. Laryngol.*, Vol. 6, Heft 2, 1913, p. 251.

In one case, female of 18 years, sudden redness of left eye and lacrimation complained of lasting five to ten minutes accompanied by tickling in nose and pain between nose and eye. Septal tubercle on left side very sensitive and touching it produced these symptoms. Symptoms subsided on application of cocaine. Tubercle cauterized; symptoms disappeared.

Another case complained of frontal headaches. Nose normal except for hyperesthesia of septal tubercle. Cauterization and cure.

Six other cases are reported, in two of which the septum was hyperplastic. Ed.

## 82

**Nerve-reflexes of Nasal Origin.** S. MENGONI, *Arch. ital. di Otol.*, No. 5, 1913, p. 376.

Mengoni discusses the various causes and explanations of nasal reflexes and reports two cases: In the case of a man of 27, all asthmatic symptoms subsided after removal of a crista septi. In the case of a child of 13 years, the epilepsy and motor aura disappeared after removal of a hypertrophied middle turbinal. Ed.

## 93

**Nasal Rachitis and Its Relation to Bronchial Asthma.** WALB, *Deut. med. Wchnschr.*, Nov. 20, 1913.

Rachitic alterations such as deviations of the septum, formation of spurs, etc., may cause bronchial asthma. Though these conditions are

not all of rachitic origin, they may engender the asthma. Their correction may effect a cure. Phosphorus treatment is also effective. Ed.

## 96

**Special Group of Nasal Polypi Originating Within the Accessory Cavities.** GEORG AVELLIS, *Ztschr. f. Laryngol.*, Bd. 6, Heft 4, 1913.

While in the vast majority of cases the pathological relationship between nasal polypi and affection of the accessory cavities cannot be clinically ascertained, the writer describes a special kind of nasal polypi that are always associated with polypi of the sinus. When, in the absence of suppuration, there are found in one nasal cavity solitary cystic polypi that are pendulating on their thin pedicle and show great mobility while transillumination reveals a dark antrum, polypi are also simultaneously met with in Highmore's cavity. The Roentgen picture of both cavities may not show any difference whatsoever. As they originate within the antrum, the latter must be opened and all polypi thoroughly removed. The canine fossa is usually sensitive to pressure. In such cases evulsion of the nasal polypi is not sufficient. GLOGAU.

## 97

**So-called Soft and Hard Papillomata of the Nose.** A. BRUEGGEMANN, *Ztschr. f. Ohrenh.*, Bd. 69, Heft 2, 1913, p. 97.

In classifying papillomata the pathological anatomical findings must be considered. One case of so-called soft papilloma and another of hard papilloma are reported. Ed.

## 100

**Report of a Case of Nasal Polypi Involving the Orbit, Frontal Sinus and Anterior Fossa of the Skull.** W. R. CHAMBERLIN.

Original contribution to *THE LARYNGOSCOPE*, Oct., 1913, p. 982.

## 109

**Two Unusual Cases of Nasal Polypi.** C. W. KOLLOCK, *South. Med. Jour.*, June, 1913.

Kollock reports the cases of two sisters in whom, from a distance of twenty feet, the polypi could be distinctly seen projecting from the noses; closer examination showed the chambers literally stuffed. Thorough removal of large masses under chloroform anesthesia; recurrence within month; Killian operation on younger who was the duller and deafer; opening showed that what should have been the frontal sinus was the cranial cavity. Middle turbinates removed; growths seems to spring from antra and ethmoid cells. No recurrence; hearing and mental condition greatly improved. Similar operation on other sister but with slight recurrence of growths. Ed.

## 116

**Case of Large Choanal Polyp.** R. F. RIDPATH, *Trans. Phila. Laryngol. Soc.*, Nov. 18, 1913.

Abstracted in *THE LARYNGOSCOPE*, Jan., 1914, p. 78.

## 119

**Brief Pathological Study of Papillomata with Reference to Their Existence Within the Nose.** R. B. SCARLETT.

Original contribution to THE LARYNGOSCOPE, July, 1913, p. 765.

## 121

**A Case of Metastatic Hypernephroma Within the Nasal Cavity.** E. STORATH, *Ztschr. f. Ohrenheilk.*, No. 2, 1913.

A patient, 58 years of age, was suffering from nasal obstruction. The right inferior turbinate showed a necrotic tumor mass that was easily bleeding. As the tumor recurred after a turbinectomy, Denker's radical operation was performed. The repeated recurrence of the tumor led to several radical operations. The patient finally died from excessive loss of blood. The histological diagnosis at the different operations was as follows: granuloma, carcinoma, perithelioma, carcinoma medullare and finally hypernephroma. The post-mortem revealed an epinephroma of the right kidney and suprarenal gland with metastasis in the lungs, glands and nose.

The writer arrives at the following conclusions: In a case of malignant nasal tumor whose growth, extension and decay is suggestive of carcinoma, metastasis of hypernephroma must be thought of, when pulsation and excessive spontaneous hemorrhages are present. The diagnosis must rely upon the clinical picture as the histological examination is frequently misleading. A simultaneous radical operation upon the metastasis and the primary tumor is indicated when the diagnosis is established at an early stage, the general condition of the patient is good and with all probability no other metastasis is present. In all other cases palliative treatment alone is indicated. The failure of the histological examination may be responsible for the supposed rare occurrence of metastatic nasal hypernephroma; many cases of this kind may have been reported as nasal carcinoma.

GLOGAU.

## 127

**Naso-pharyngeal Polypi in Young Persons Operated for Adenoids.** W. R. BUTT, *Pa. Med. Jour.*, Aug., 1913.

Two cases are reported, one in a boy of 16 years, the other in a boy of 6 years. In both cases there was recurrence after removal. The growths originate in the nose and extend backward into pharynx; they partly resembled nasal polypi but were denser and more fibrous. In the second case there were also nervous symptoms and choreic movements. Because of their great tendency to bleed it is important to make a differential diagnosis prior to operation.

ED.

## 128

**Fibro-myxoma of the Naso-pharynx.** G. H. COCKS, *Trans. N. Y. Acad. of Med.*, March 26, 1913.

Abstracted in THE LARYNGOSCOPE, Oct., 1913, p. 1018.



**138**

**Case of Recurring Fibroma of the Naso-pharynx.** W. N. ROBERTSON, *Australasian Med. Gaz.*, June 7, 1913, p. 541.

Boy of 10 had hard fibroma presenting from under the molar bone and spreading into the pterygo-maxillary fossa. Operative removal. After 15 months large naso-pharyngeal fibroma formed; resection of soft palate, and growth removed; part of growth which extended into the fissura pterygo-maxillaris also removed, by means of traction. Recovery. Ed.

**141**

**Cancer of the Naso-pharynx.** T. J. THYME and J. S. FRASER, *Edin. Med. Jour.*, Jan., 1913, p. 54.

Woman of 55 years complained of pain on left side of neck, in left ear. Bloody mucus blown from nose, deafness and swelling in glands on left side. Ulcerated infiltration on posterior surface of the soft palate. Examination of gland removed showed it to be carcinomatous. Ed.

**143**

**Lupus of Interior of Nose.** ALBANUS, *Arch. f. Laryngol.*, Bd. 27, Heft 2, 1913, p. 189.

The pathogenesis is discussed apropos of several cases, and new explanations given as to its etiology and course. Ed.

**145**

**Primary Syphilis of the Nose Treated with "606."** M. ARTELLI, *Boll. delle Mal. dell'Orecchio*, June, 1913, p. 126.

Abstracted in *THE LARYNGOSCOPE*, Dec., 1913, p. 1135.

**147**

**Leishmaniosis (Oriental Sore) of the Nasal Mucosa.** L. B. BATES, *Jour. A. M. A.*, March 22, 1913, p. 898.

This is the fifth case observed at the Ancon Hospital. Almost the entire helix of the ears and the extensor surfaces of both elbows were involved. Lower half of nose swollen very much and indurated. Free margins of alae nasi deeply ulcerated and covered with hard crusts. On lower edge of four-to-six-inch scar over sternum heavy crusts. Button, size of marble, on right shin; no glandular enlargement. Smears from septum showed many pus-cells and a moderate number of typical leishmaniae tropicae; no acid-fast organisms found. Ed.

**155**

**Traumatic Anosmias.** CASTEX, *Bull. d'oto-rhino-laryngol.*, July, 1913.

The first case was one of a woman who sustained injury in an automobile accident. After that her olfactory sense was so deficient that once she was unable to detect a strong smell of escaping gas and at another time the burning of her dress. The second case was similar to the first.

The third concerned a cook who, after a fall, remarked that he had lost his sense of taste and smell and constantly had in his nose a smell of rotten fruit or dead bodies.

The author discusses the pathogenesis; the prognosis is always grave.

Ed.

**157**

**Foreign Body in Naso-pharynx.** F. CHAVANNE, *Arch. intern. de Laryngol.*, Jan.-Feb., 1913, p. 153.

Child of 5 years had mouth-piece of trumpet five months in naso-pharyngeal cavity. Removal with Chatellier's adenoid forceps.

**158**

**Nose and Ear in Congenital Deficiency of Sweat Glands.** J. CHRIST, *Ztschr. f. Laryngol.*, Bd. 6, Heft 3, 1913, p. 391.

Thus far but five cases of congenital absence of sweat glands are recorded. In three of the cases there were also changes in the auricle and in four ozena was present. The author discusses the etiology of ozena. He agrees with those who hold that ozena is a tropho-neurotic disturbance and that chiefly because of disturbances of inner secretions toxic substances collect which cause the trophic disturbances. Ed.

**161**

**Fibrinous Rhinitis.** V. DABNEY.

Original contribution to THE LARYNGOSCOPE, March, 1913, p. 208.

**162**

**Naso-Pharynx as a Cause of Disease in Other Parts of the Body.** J.

DALAND, *Trans. Phila. Laryngol. Soc.*, April 15, 1913.

Abstracted in THE LARYNGOSCOPE, Feb., 1914, p. 156.

**164**

**The Nose and Throat.** E. DANZIGER, *N. Y. Med. and Surg. Jour.*, April 19, 1913.

Abstracted in THE LARYNGOSCOPE, Nov., 1913, p. 1081.

**178**

**Bilateral Choanal Atresia in the New-born.** A. GOEZ, *Ztschr. f. Ohrenh.*, Bd. 68, Heft 1, 1913, p. 43.

The child was very dyspneic; at age of 4 months the thin-walled bony choanal atresia was opened with a Spiess trephine. Irregularity in subsequent treatment again resulted in atresia; dilations with celluloid bougies which is still regularly done, once a week, to prevent further dyspnea. Ed.

**184**

**Hydrorrhea Nasalis, Cured.** J. GUTTMAN, *Trans. N. Y. Acad. of Med.*, Dec. 17, 1913.

Abstracted in THE LARYNGOSCOPE, Jan., 1914, p. 66.

**186**

**Etiology of Ozena.** G. HOFER, *W. klin. Wchnschr.*, June 19, 1913.

Hofer describes the cocco-bacillus fetidus ozenae, a small, polymorphous bacillus which stains well with the usual aniline colors, is Gram negative, does not liquify gelatin or coagulate milk, induces ammoniacal fermentation of the urine; the cultures emit the typical fetid odor of ozena. This bacillus, he claims, may be found in most cases of ozena in man. Hofer urges further bacteriological examination. Ed.

**196**

**Primary Intra-nasal Syphilis.** N. MACLAY, *Jour. of Laryngol.*, Nov., 1913, p. 586.

Case in man of 35 years who was associated with man known to be suffering from early secondary syphilis. The infection was probably conveyed by the fingers. Ed.

**199**

**Syphilis of the Nose and Throat.** H. H. MARTIN, *South. Med. Jour.*, Jan., 1913.

Abstracted in THE LARYNGOSCOPE, Oct., 1913, p. 988.

**201**

**The Narrow Nose.** R. E. MERCER, *Jour. Mich. State Med. Soc.*, Jan., 1913, p. 18.

The author discusses the various causes, their early prevention and the later operative measures, especially in relation to orthodontia. Ed.

**204**

**Case of Congenital Deformity of Nose.** MYLES, *Trans. N. Y. Acad. of Med.*, April 23, 1913.

Abstracted in THE LARYNGOSCOPE, Nov., 1913, p. 1099.

**208**

**The Ozena Problem.** R. H. PARKER, *Jour. Ophth. and Oto-Laryngol.*, Jan., 1913, p. 8.

Abstracted in THE LARYNGOSCOPE, May, 1913, p. 584.

**210**

**Ozena, a Contagious Disease; Vaccination.** F. PEREZ and G. HOFER, *Berl. klin. Wchnschr.*, Dec. 29, 1913.

A very large number of cases have been followed up and studied bacteriologically and have established the matter of contagion. The coccobacillus fetidus ozenae, also called bacillus Perez, has been shown approximately to be the sole cause of ozena. A large number of cases of apparent canine contagion have also been collected. Ed.

**211**

**Etiology of Hypertrophic Rhinitis.** J. A. PRATT, *Ill. Med. Jour.*, Dec., 1913.

Pratt states that hypertrophy of the nasal tissue is caused by irritation of abnormal secretion, as in sinus disease. In the presence of a normal septum and absence of sinus trouble the cause should be sought in an irritating condition of the blood due to auto-intoxication. When the septal disorders are corrected the turbinal hypertrophy decreases, and no further procedure is necessary. Therefore the author urges conservatism as to turbinal operations. Ed.

**216**

**Nose as Source of Infection in Chorea and Acute Rheumatism.** M. SENATOR, *Deut. med. Wchnschr.*, May 8, 1913.

Abstracted in THE LARYNGOSCOPE, March, 1914, p. 184.

**224**

**Anerobic Organism Associated with Acute Rhinitis.** R. TUNNICLIFF, *Jour. A. M. A.*, June 28, 1913, p. 2033.

Tunnichiff has isolated an organism found usually in large numbers unassociated with other germs in the mucoid discharge in every case of acute rhinitis she has studied. It gradually disappears as the discharge becomes purulent. In cases of accompanying pharyngitis, tonsillitis or bronchitis, the organism was also found in the sputum and mucus of the throat. It was also seen in a case of acute pharyngitis unaccompanied by rhinitis. Carbol-gentian violet and carbol-fuchsin are the best stains. The organisms seem generally mobile and vary in length from 5 to 8 microns and from  $\frac{1}{2}$  to  $\frac{1}{4}$  micron in width. They are strictly anerobic and grow slowly. The author has observed them constantly in the early stages of eighteen cases of acute coryza but she is as yet unprepared to say whether they are the cause of this affection.

**232**

**Nasal Catarrh.** W. WILSON, *Practitioner*, Oct., 1913.

For acute coryza Wilson recommends 1. Single pill of morphin ( $\frac{1}{4}$ ) with little capsicum and ol. meth. plp. 2. After two hours 10 grs. of aspirin. 3. A hot bath. 4. The following morning a purgative dose of magnesium sulphate. An irritant anti-septic menthol-salicylic preparation should be inserted well up into each nostril, but without cocaine.

Ed.

**234**

**Atrophic Rhinitis in Its Historical, Etiological and Histological Aspects**

J. WRIGHT.

Original contribution to *THE LARYNGOSCOPE*, June, 1913, p. 641.

**237**

**Electric Treatment of Tuberculosis of the Nose, Throat and Larynx.**

ALBANUS, *Berl. klin. Wchnschr.*, Sept. 29, 1913.

Albanus discusses the methods and indications, and states that this therapy is the safest, that very good results are obtained in tuberculous ulcers in the pharynx, and that the surrounding areas of the tuberculosis ulcer or growths thus treated tend to hasten the healing process.

Ed.

**239**

**Ether Anesthesia in Nose and Throat Operations.** R. E. APPERLY and S.

HASTINGS, *Lancet*, Sept. 20, 1913.

A modification of the junker apparatus is used. Oxid of nitrogen is used before the ether is administered.

Ed.

**244**

**Removal of Adenoids by Direct Inspection.** J. C. BECK, *Ann. of Otol.*, June, 1913, p. 273.

A small rubber catheter is inserted through the nostrils and the ends brought out through the mouth, for control of hemorrhage after removal

of faucial tonsils and for direct inspection by traction on the ends of the catheter at the time of the adenoid removal, by the assistant. When there is adenoid growth around tube or when the artery forceps are applied to posterior naso-pharyngeal wall for excessive post-operative hemorrhage, this method is especially recommended. Ed.

**246**

**Electrolytic Treatment of Rhinophyma.** BORDIER, *Presse med.*, July 12, 1913.

The author reports excellent results with this treatment. The destroyed tissue blackens, shrivels and becomes detached in about two weeks. Two lobes of the rhinophyma can be removed at one sitting. During the period of repair, antiseptic local baths are employed. If small elevations remain after the electrolytic treatment they can easily be removed by diathermy, a fine metallic electrode being used. Then the nasal surface remains smooth, the cicatricial tissue flexible and the color normal. Ed.

**258**

**Plastic Cartilage of Ala Nasi.** C. CANESTRO, *Arch. f. Laryngol.*, Bd. 27, Heft 1, 1913.

Canestro successfully transplanted a piece of rib into nose to relieve sinking in of the cartilage of ala nasi due to trauma. Ed.

**261**

**Cases of Nasal Deformity Corrected by Transplantation of Bone.** W. W. CARTER, *Trans. N. Y. Acad. of Med.*, Oct. 22, 1913.

Abstracted in *THE LARYNGOSCOPE*, Dec., 1913, p. 1165.

**262**

**Operations for Correction of Deformities of Nose.** W. W. CARTER, *Trans. Phila. Laryngol. Soc.*, Oct. 21, 1913.

Abstracted in *THE LARYNGOSCOPE*, Jan., 1914, p. 74.

**267**

**Treatment of Rhinophyma by Radium.** DEGRAIS, *Arch. d'Electr. Med.*, May 25, 1913.

Two of the cases cited belonged to the glandular variety of rhinophyma in which the glands are voluminous and the other was of the elephantiac variety in which dermic sclerosis with vascular dilation predominates. All three cases improved under the influence of radium which was applied for forty-eight hours, during four nights of twelve hours each. The applications were made on the side of the nose by the Wickham's "cross-fire" method, four series of radiations being given at six weeks intervals. Ed.

**274**

**Autogenous Vaccines in the Treatment of Hay-fever.** P. M. FARRINGTON. Original contribution to *THE LARYNGOSCOPE*, Dec., 1913, p. 1133.

**277**

Approach to Hypophysis Through Anterior Cranial Fossa. C. H. FRAZIER, *Ann. of Surg.*, Feb., 1913, p. 145.

An osteoplastic flap is reflected from the right frontal region in the removal of the supra-orbital ridge with a portion of the roof of the orbit, later to be replaced, and in rongeurling away what remains of the roof of the orbit down to the optic foramen. The orbital contents are displaced downwards and outwards, and the frontal lobe elevated until a view of the optic nerve is obtained. Then a short incision is made into the dura which lays bare the cavity of the sella turcica. The rest of the operation depends on the kind of lesion present. This method is indicated, according to the author, in all cases where the orifice of the sella is enlarged and where there is reason to believe the tumor is encroaching upon the brain.

Ed.

**278**

Tumor of Hypophysis Partially Removed by Transfrontal Method. C. H. FRAZIER and J. H. LLOYD, *Jour. A. M. A.*, Nov. 1, 1913, p. 1626.

The authors report a case operated on by this method with excellent results.

Ed.

**284**

Indications for the Correction of Deviations of the Nasal Septum by the Gleason Operation. E. B. GLEASON.

Original contribution to THE LARYNGOSCOPE, Dec., 1913, p. 1129.

**291**

Hiss Leucocyte Extract in Complications of Nasal and Aural Surgery. W. H. HASKIN.

Original contribution to THE LARYNGOSCOPE, Oct., 1913, p. 972.

**295**

Vaccine Therapy of Ozena.

G. HOFER and K. KOPLER, *Wt. klm.*

*Wchnschr.*, Oct. 16, 1913.

Ten cases of ozena have been treated by injection of Perez's coccobacillus fetidus ozenae with excellent results after about eight weeks. Even after the first injection the secretion in the nose and pharynx begins to clear up and become fluid, then it and the crusts diminish, and soon the crusts entirely disappear. The fetor also disappears. Eczema of long standing gets well and the dry pharyngitis and the voice improve.

Ed.

**296**

Pre-nasal Opening of the Sella Turcica. RUDOLF HOFFMANN, *Ztschr. f. Ohrenh.*, Bd. 69, Heft 2, 1913.

Pen surgery, while always a totally dangerous procedure, may at times be of highly suggestive value. The originator of an idea, a book or any other work can always learn by his critic. This article is full of suggestions. The writer, apparently, did not as yet perform a per-nasal exposure of the sella turcica, but he tells us how he would do it in a given



case. Hirsch's method of approaching the sphenoidal cavity between the submucous sac of the resected septum appeals most to the writer. He would, of course, change the method radically. In order to avoid infection and retention the writer advocates the removal of the entire sac of mucous lining whereby excellent drainage of the sphenoidal cavities would be established and tamponade could be avoided. The writer, furthermore, objects to Hirsch's incision of the wall of the cyst and excochleation of a solid tumor at the sella turcica. He advocates the use of the exploratory needle. In case of cyst, the latter would be evacuated and thus decompression established. In case of a solid tumor, the operation should limit itself to the removal of the adjoining sphenoidal walls. The hypophysis may then develop into the sphenoidal cavity and the pressure symptoms will disappear. Removal of the hypophyseal tumor is only indicated in acromegalia, where it bulges already into the sphenoidal cavity. It should then be removed by means of the galvano-caustic snare. The writer recommends Cushing's sublabial method to those not very skillful in intra-nasal surgery.

The Roentgen picture is considered by the writer of high diagnostic value. He succeeded in getting excellent pictures of the sphenoidal cavities by applying towards the posterior pharyngeal wall a plate that was fixated in position by means of the teeth. The exposure was a vertical one.

GLOGAU.

### 298

**Restoration of Nose by Pendunculated Flap of Skin from Over the Sternum.** E. HOLLAENDER. *Berl. klin. Wchnschr.*, Jan. 20, 1913.

Hollaender uses the Italian method and takes a pedunculated flap from the chest over the sternum. The head is bent forward and immobilized but the arm is not immobilized. He feels that the skin from the chest is better fitted for restoration of the nose than that of arm and there is less danger of necrosis.

Ed.

### 303

**Efficient and Easily Removable Nasal Packing.** E. F. INGALS, III. *Med. Jour.*, March, 1913, p. 249.

Ingals uses a rubber sponge fashioned to fit the nares (about 2 mm. thicker than the extreme width of the shrunken nares). A strong linen thread is passed through the nares from above downward, 1.5 cm. back of the proximal end and its ends tied in a loop 4 cm. long, by which the sponge may be withdrawn. A second thread is tied through to prevent tearing apart on removal. A strong thread may be passed through the sponge 4 cm. in front of its posterior end and fastened to it and then carried forward through the opposite side and united with the first end in a loop. If this loop be pulled after the packing is inserted the sponge will be doubled back on itself and the choana very tightly packed. A few whiffs of chloroform are given when the pack is removed.

Ed.

### 304

**Successful Treatment of Atrophic Rhinitis and Ozena.** L. JACOBS, N. Y. *Med. Jour.*, May 31, 1913.

Abstracted in *THE LARYNGOSCOPE*, March, 1914, p. 182.

**306**

**Simple Submucous Ledge Operation.** R. H. JOHNSTON.

Original contribution to THE LARYNGOSCOPE, Sept., 1913, p. 928.

**311**

**Plastic Operations on the Nose.** F. KOCH, *Berl. klin. Wchnschr.*, Sept., 1913; and *Intern. med. Monatschr.*, No. 10, 1913.

Three cases are reported. One case, an abnormally large nose, was diminished through a wedge-shaped incision. In the second there was a very pronounced indentation at the root of the nose. In this case periosteal bone transplantation from the tibia was performed. In the third case an entirely new nose had to be formed, because of destruction due to long-standing lupus. Transplantation from tibia to right upper arm and thence to nose according to the Italian method. Later a septum was formed by free transplantation. All operations were performed under local anesthesia.

Ed.

**315**

**Rational Treatment of Nasal Hydrorrhea.** LERMOYEZ, *Press Med.*, May 28, 1913.

Sedentary life, over-eating and excessive intellectual activity are always accountable for the arthritic diathesis. The nasal hydrorrhea is usually a vicarious syndrome pointing to some disturbance in the metabolism of the organic fluids. Rational treatment should aim to diminish toxic waste production and promote renal activity. Rest in bed and a milk diet have proved very beneficial. As local treatment, hot air insufflations suffice.

Ed.

**317**

**Rhinoplasty with Finger.** C. A. MACWILLIAMS.

Abstracted in THE LARYNGOSCOPE, May, 1913, p. 629.

**318**

**Modern Treatment of Ozena.** G. MAHU, *Presse Med.*, Jan. 4, 1913, p. 9.

Abstracted in THE LARYNGOSCOPE, Aug., 1913, p. 837.

**320**

**Correction of Nasal Deformities.** G. M. MARSHALL, *Jour. A. M. A.*, Jan. 18, 1913, and *Pa. Med. Jour.*, Aug., 1913.

Marshall considers only disfiguring deformities, most of which are combined with serious nasal obstruction. The operation described has been performed in thirty-three cases. The technic is detailed. This procedure does not restore lost bones but radically and simply corrects misplaced ones, straightens the buckled septum, gives free nasal breathing and affords ample room for further removal of septal spurs or thickenings if necessary.

Ed.

**321**

**Opening of the Lacrimal Sac Through the Nose.** O. MAYER, *Wt. klin. Wchnschr.*, Dec. 11, 1913.

Mayer has operated on five cases by this method. The technic is difficult and requires careful anesthetizing but restores the physiological

tear-flow, cures inflammation of the lacrimal sac, does away with a skin incision and with the necessity of operating on the lacrimal glands. Ed.

### 324

Hemorrhage in Naso-Pharynx. A. MEYER, *Berl. klin. Wchnschr.*, Dec. 22, 1913.

The author reviews the various methods of arresting hemorrhage in the naso-pharynx and points out their defects. Escat's tamponade is, in his opinion, the only reliable one. It may be left *in situ* as long as forty-eight hours if necessary. Ed.

### 328

Further Experience with Method for Prevention of Operation in Submucous Resection. R. M. NELSON, *Ga. Med. Assn. Jour.*, July, 1913.

Nelson in this paper again recommends the technic which he and Dr. Murray evolved and which he has successfully tried out in 136 submucous operations. Ed.

### 331

"Coagulin Kocher-Fonio," a New Hemostatic. H. OBERMUELLER, *Muench. med. Wchnschr.*, No. 51, 1913.

This preparation is said to prevent the hemorrhage occurring after use of cocain or adrenalin in rhinological surgery. Ed.

### 333

Technic and After-treatment of Submucous Resection Without Packing. L. OSTROM.

Original contribution to THE LARYNGOSCOPE, Sept., 1913, p. 913.

### 338

New Treatment of Ozena. O. RABASA, *Rev. esp. de Laryngol.*, No. 2, 1913.

Oxygen under pressure is applied to the mucosa by means of an especially constructed canula. The oxygen is an antiseptic as well as a cleanser, since it also removes the crusts. It acts as a massage and revives the mucosa. Ed.

### 353

Treatment of Secondary Hemorrhage Following Operations on the Nose and Throat. P. S. STOUT, *Trans. Phila. Laryngol. Soc.*, March 18, 1913.

Abstracted in THE LARYNGOSCOPE, Dec., 1913, p. 1174.

### 356

Intra-nasal Operations and Their Relation to Hearing. S. W. THURBER. Original contribution to THE LARYNGOSCOPE, Dec., 1913, p. 1141.

### 361

Paraffin Nasal Bridge Building—Technic and Report of Case. E. L. VANSANT.

Original contribution to THE LARYNGOSCOPE, Sept., 1913, p. 908.

**366**

**Access to Lacrimal Sac Through Nose.** J. M. WEST, *Berl. Klin. Wchnschr.*, May 19, 1913; and *Arch. f. Laryngol.*, Bd. 27, Heft 2-3, 1913.

The nasal chamber is cocaineized, the inferior turbinal opened, the ascending process of the superior maxillary and lacrimal bone chiselled away and the distend sac exposed. This establishes ample communication by the natural routes between the eye and nose above the inferior turbinal which is left intact and physiological conditions are re-established. In 90 per cent of his cases this procedure was very effective.

ED.

**368**

**New and Efficient Treatment of Atrophic Rhinitis.** K. K. WHEELLOCK. Original contribution to *THE LARYNGOSCOPE*, Oct., 1913, p. 986.

**374**

**Artificial Nose.** F. ZINSSER, *Muench. med. Wchnschr.*, Dec. 9, 1913.

Zinsser regards Hennig's idea of making an artificial nose from a soft material as a great advance in this line. He gives two illustrations "before and after," which confirm the excellent result obtainable. A plaster cast is made over a normal nose and melted gelatin, tinted a flesh tint, is poured into the cast. When it has hardened it is taken out of the cast, holes are made for the nostrils, and the edges are softened with a hot spatula. The artificial nose is then fitted over the patient's deformed nose, and is held in place with a little varnish or mucilage. The edges of the prothesis are made to run out into a thin sheet all around, and this sheet is patted down on the skin with a hot cloth, and a little powder dusted on the edges. Being comparatively plastic, the gelatin nose yields and moves with the play of the face, giving a particularly life-like look to the new nose. The patients soon learn to make a new prothesis for themselves as needed. The whole procedure is extremely simple, the materials are very inexpensive and the cosmetic effect unusually good.—*Ex.*

**381**

**Epithelioma of the Soft Palate.** B. DOUGLAS, *Trans. N. Y. Acad. of Med.*, 1913.

Abstracted in *THE LARYNGOSCOPE*, June, 1913, p. 717.

**383**

**Anatomy and Treatment of Cleft Palate.** F. W. GOYDER, *Brit. Jour. of Surg.*, Vol. 1, 1913, p. 259.

When combined with hare-lip, simultaneous operation on the lip and palate is inadvisable on account of the extra time necessary for their adequate performance. Early preliminary operation on the lip is indicated. The whole cleft should be closed as soon as it can be done without preventing the production of a physiologically useful hard and especially soft palate. In a patient of 3 years, a median is usually preferable to a flap operation. Under 3 years, without a complete cleft, no operation should be done on the palate until, following the preliminary

closure of the lip, the alveolar margins of the cleft have become nearly or completely in contact. As a rule it is impossible to fashion a soft palate sufficiently long in a patient over 12 years; better results can be obtained with a modern type of mechanical appliance. Under 12 years it is best to close the cleft as speech is much better. The respective merits of the Lane and Langenbeck methods are discussed. Ed.

## 385

**Cleft Palate and Hare-lip.** S. L. McCURDY, *Pittsburg Med. Jour.*, July, 1913.

The case reported was a unilateral complete hare-lip, cleft arch and cleft palate. A modified Langenbeck hare-lip operation was performed on the lip. The third tooth was extracted from the cleft; the alveolar process fractured into the right anterior naris with a chisel through the tooth socket. Then the inter-maxillary bone was forced around so as to close up the cleft. The free ends of the process were freshened and the bone held together by wiring. Iron wire was used. No operation was done on the roof of the mouth since the left nasal cavity was not open and there was no palate floor on the other side. Ed.

## 391

**Cleft Palate.** J. F. OESCHNER, *N. Orleans Med. and Surg. Jour.*, April, 1913.

Oeschner feels that the best time for operation is before the child begins to talk. He prefers the Langenbeck operation; when one side of the cleft projects beyond the other they are brought together with silver wire suture after the method proposed by Brophy, resecting a portion of the inter-maxillary bone when it projects. The author prefers doing the operation in two stages. Ed.

## 400

**Enlarged Tonsils and Adenoids and Their Treatment with Lymphatic Gland Extract.** H. T. ASHBY, *Brit. Med. Jour.*, May 31, 1913, p. 1159.

Ashby holds that adenoid and tonsillar hypertrophy is an attempt on the part of Nature to augment the lymphoid tissue of the body and supply the deficiency existing in the other lymphoid tissue. He points out the frequent recurrence of adenoids if removed before the age of 5 years and argues that this is a second attempt on the part of Nature to supply the body with the lymphoid secretion it needs at this age. Therefore if this lymphatic gland extract be artificially supplied the results should be satisfactory, and they have been in thirty cases. Snoring and noises in breathing have disappeared and the tonsils have decreased in size. Ed.

## 402

**Broncho-pulmonary Complications Following Adenoidectomy and Tonsillectomy.** G. BASSIM, *These de Paris*, 1913.

The thesis is divided into six chapters: 1. Complications of adenoidectomy and tonsillectomy in general. 2. Infectious complications of these operations. 3. Broncho-pneumonic complications. 4. The author's own observations. 5. Pathogenesis of broncho-pulmonary complications. 6. Prophylactic measures. Ed.

**409**

**Function of the Tonsils.** A. BRAMSON, *Novoe v. Medetsiny*, March, 1913.

Bramson studies the relation of the tonsils to the lymphatic system and shows that the defensive function of the tonsil is very slight. Ed.

**414**

**Tuberculosis of the Pharyngeal Tonsils in Adults.** A. BRUEGGEMANN. *Ztschr. f. Ohrenh.*, Bd. 68, Heft 1, 1913, p. 29.

The author has recently observed three cases of tuberculosis of the palatine tonsils in middle-aged persons who appeared vigorous and not at all tubercular. Two were definitely primary lesions; the third secondary to a pulmonary and laryngeal affection. Ed.

**416**

**Peculiar Syphilitic Lesion of Palatal Tonsil.** CITELLI, *Arch., intern. de Laryngol.*, July-Aug., 1913.

This lesion affects both tonsils and consists of a fungus-like enlargement projecting beyond the pillars. The surface of the lesion is smooth and slightly rose-colored. Two cases are reported in which this manifestation was the only symptom. Mercurial treatment effected a cure. Ed.

**417**

**Results in a Series of Cases of Tonsillectomy Three or Four Years After Operation.** J. P. CLARK, *Trans. Am. L. Assn.*, 1913, p. 43.

The author holds that severe hemorrhage after tonsillectomy is rare. Improvement in general health took place after operation and the operated children were probably less susceptible to disease. In four cases the uvula was accidentally cut off but no bad symptoms followed. Remnants of tonsillar tissue cause no untoward symptoms. The ordinary voice is unaffected by tonsillectomy. Enlarged cervical glands are often due to tonsillar tissue, though carious teeth may cause cervical adenitis. All the author's cases were under 15 years of age. Ed.

**423**

**Tonsillitis Following Use of Staphylococcus Spray.** C. M. DAVIS, *Jour., A. M. A.*, Aug. 9, 1913, p. 393.

The patient was instructed to spray his nose and throat three times a day with a pure culture in sterile normal salt solution. Symptoms of tonsillitis on second day; smears showed staphylococci; on the next day diphtheria bacilli also found. Five days later the diphtheria bacilli had disappeared but there were still numerous staphylococci and some pneumococci and streptococci present. The tonsillitis was much more severe subjectively than the diphtheria. Ed.

**440**

**Plea for the Entire Removal of Enlarged and Diseased Tonsils.** B. C. GILE, *Pa. Med. Jour.*, June, 1913.

Abstracted in *THE LARYNGOSCOPE*, Sept., 1913, p. 935.



## 443

**Indication for the Relative Values of Tonsillotomy and Tonsillectomy.**

J. L. GOODALE, *Boston Med. and Surg. Jour.*, Oct. 2, 1913, p. 485.

Goodale concludes: (1) It has been demonstrated that complete removal of the tonsil is followed by harmful effects upon the general system. (2) Tonsillotomy involves less trauma than does tonsillectomy, but in the latter the method of removal is of primary importance, a sharp dissection down to the tonsillar artery, with snaring of vessels, giving the least amount of inflammatory action. (3) Tonsillectomy shows a larger percentage of septic complications, due both to the greater trauma usually occasioned and also to the large number of septic conditions in which of late years an operation is undertaken. (4) In tonsillectomy cicatricial occlusion of the lacunar orifices is frequent and may lead to an intensification of the original chronic inflammation. Tonsillectomy in unskilled hands may be followed by marked and injurious distortion, but with good technics should have no other alteration than an approximation and occasionally a partial fusion of the pillars. (5) Simple hyperplasia if obstructive or favoring catarrhal conditions and if persistent may be sufficiently treated by a tonsillotomy, especially in children. (6) Recurrent local infections, or general infections having their origin in the tonsils require tonsillectomy as soon as a favorable opportunity for operation arrives. Here tonsillotomy may prove inadequate. (7) The systemic ill-effects of chronic tonsillitis may be increased by a tonsillectomy. Complete removal is here preferable to a partial one, although mild cases of chronic inflammation may be sufficiently relieved by appropriate treatment without excision.

Ed.

## 444

**Some Pathological Reasons for the Removal of the Tonsils.** L. N.

GROSVENOR, *Jour. Lancet*, Dec. 1, 1913.

Grosvenor holds that the faucial tonsils are a frequent source of infection and disease and that not the large protruding tonsils are the most dangerous but the small, submerged ones,—those bound down by old inflammatory adhesions. He, therefore, advocates tonsillectomy and not tonsillotomy.

Ed.

## 445

**The Tonsil—A Vestigial Respiratory Organ.** J. A. HAGEMANN, *Med.*

*Rec.*, Oct. 25, 1913, p. 756.

Hagemann offers the hypothesis that tonsils are probably vestigial organs of respiration, a modified form of gills or branchiae, surviving from the piscine and amphibious periods of man's descent, but not deciduous. In young children, especially, the tonsil is dotted with mouths of crypts whose cavities are lined with epithelium and from this the author deduces the conclusion that this arrangement was to present a greater surface to the water, thereby giving additional opportunity to absorb necessary oxygen.

Ed.

**453**

**Presentation of a Tonsillolith.** R. H. HUVELLE, *Trans. N. Y. Acad. of Med.*, Feb. 26, 1913.

Abstracted in *THE LARYNGOSCOPE*, July, 1913, p. 793.

**455**

**Relation of Faucial Tonsils to Pulmonary Tuberculosis.** E. F. INGALLS, *Jour. A. M. A.*, July 12, 1913.

In a small proportion of cases the tonsils seem primarily involved in the process of pulmonary tuberculosis but usually the changes in these glands are secondary and the bacilli are apparently absorbed from the sputum. Pulmonary tuberculosis is now considered a systemic infection of aerogenous origin; when the bacilli are taken up by the lymphatics they are poured into the general circulation. It is very unusual for the bronchial glands to be primarily involved in pulmonary tuberculosis.

Ed.

**461**

**Ratio of White Blood Corpuscles in Tonsils and Their Diapedesis.** M. N. KLATSCHKO, Dissertation—Koenigsberg, 1913.

Diapedesis only occurs in the presence of an irritation,—toxic, inflammatory, or chemical; it is not permanent and ceases after the acute stage of the inflammation has disappeared. From the tonsils there is a permanent diapedesis of the lymphocytes. Diapedesis of plasma cells is not an active but a passive process. The surface of the tonsils is covered with a bacterial flora. Cocci and bacilli are also very profuse in the lumen of their cysts. The pathogenesis of the micro-organisms is diverse; some are very virulent, while others are avirulent.

Ed.

**462**

**Acute Follicular Tonsillitis.** G. C. KNEEDLER, *Pittsburg Med. Jour.*, Oct., 1913.

Kneedler briefly describes the course of acute follicular tonsillitis and details the differentiating points between it and diphtheria. He also indicates the therapy.

Ed.

**466**

**Pharyngeal Tonsils.** B. D. LAFORCE, *Iowa State Med. Soc. Jour.*, May, 1913.

LaForce discusses the diagnostic signs, the clinical history, the technic of operation, and its possible complications.

Ed.

**472**

**Syphilitic Lesion of the Tonsil and Soft Palate.** F. O. LEWIS, *Trans. Phila. Laryngol. Soc.*, Nov. 18, 1913.

Abstracted in *THE LARYNGOSCOPE*, Jan., 1914, p. 79.

**474**

**The Offending Tonsil.** W. C. LYLE, *Ga. Med. Assn. Jour.*, July, 1913.

Lyle refutes the statements made by Mackenzie in his paper on the "Massacre of the tonsil."

Ed.

## 475

- Massacre of the Tonsil. J. N. MACKENZIE, *Prog. med. Belge*, Feb. 1, 1913;  
and *Arch. ital. di Laringol.*, April 7, 1913.  
Abstracted in THE LARYNGOSCOPE, April, 1913, p. 435.

## 484

- Papillomatous Intra-cryptic Lesions of the Tonsil. P. NADAL, *Rev. hebdomadaire de Laryngol.*, March 22, 1913, p. 341.  
In man of 32 years, tonsil removed for simple hypertrophy; histologic examination revealed papillomatous changes in the crypts. Ed.

## 486

- Enucleation of Tonsils and Removal of Adenoids Under Gas Anesthesia. J. F. O'MALLEY, *Brit. Med. Jour.*, April 5, 1913, p. 699.  
Abstracted in THE LARYNGOSCOPE, Oct., 1913, p. 1007.

## 497

- Report of a Case of Phlegmon Starting as a Peri-tonsillar Abscess and Extending Downward as Far as the Second Ring of the Trachea. GEO. L. RICHARDS.  
Original contribution to THE LARYNGOSCOPE, Aug., 1913, p. 835.

## 498

- Complications of the Operations for Removal of Tonsils. C. W. RICHARDSON.  
Original contribution to THE LARYNGOSCOPE, June, 1913, p. 667.

## 505

- Typhoid Bacilli on the Tonsils. F. and L. SCHUETZ, *Deut. med. Wchnschr.*, March 6, 1913.  
Seventy-one tests were made of thirty-seven patients, of whom 23 had unmistakable typhoid, but in no instance could the typhoid bacilli be isolated. Ed.

## 508

- Results of Tonsillectomy Under Local Anesthesia. B. DE F. SHEEDY, *Chicago Med. Recorder*, July, 1913.  
Sheedy examined 100 patients who had tonsillectomy performed three to ten months previously and found the following variety of deformities:  
1. The pillars on both sides had disappeared with the soft palate tightened to such an extent that the opening at the naso-pharynx was narrowed.  
2. The pillars on both sides had grown together. 3. The anterior pillar had wholly disappeared with a large amount of cicatricial tissue deposited on the posterior pillar. He then describes his method of overcoming these difficulties; he has used it for two years and has found it entirely satisfactory in 90 per cent of the cases. Ed.

**511**

**Anomalous Internal Carotid Artery and Its Clinical Significance in Operations on the Tonsils.** P. G. SKILLERN, *Jour. A. M. A.*, Jan. 18, 1913, p. 172.

The author describes a specimen of anomalous sigmoid tortuosity of the cervical portion of the internal carotid artery found in the Anatomical Laboratory of the University of Pennsylvania. The artery over-reached from its normal position of about 2.5 cm. behind and to the outer side of the left tonsil over toward the organ. He quotes others who have noticed this anomaly and says that the practical point it teaches is to "stop, look and listen" before operating on any part of the pharynx, since this anomaly may be present in any given case. If it is present, "preliminary ligature of the internal carotid of the upper border of the thyroid cartilage should be made. If doubt arises as to whether the anomalous artery is the ascending pharyngeal or the internal carotid, the common carotid artery should be occluded in the same situation with a Matas metal clip. If the artery be discovered and damaged during an operation, control of the situation may be effected by compressing the common carotid artery against Chassaignac's tubercle (the prominent anterior tubercle of the transverse process of the sixth cervical vertebra), and ligation then performed."

**522**

**Necessity for Removing Tonsil in Treating Tuberculous Lymph-nodes in Neck.** E. TRAUTMANN, *Muench. med. Wchnschr.*, April 22, 1913.

In girl of 11 with healthy lungs and good teeth, large tubercular abscess in glands of left side of neck opened. A fistula remained. Later deep-seated caseous glands removed, and on following day apparently healthy left tonsil which on microscopic examination showed typical epitheloid tubercle cells with giant cells. The tonsil was the primary focus of infection and the author urges the complete removal of the corresponding tonsil in cases of tuberculosis of the neck glands to avoid constant dissemination of the primary tubercular focus to new glands through the lymph passages.

Ed.

**523**

**Anginal Tablets in Tonsillitis.** F. VESELY, *Casopis ceskych lekav.*, No. 10, 1913.

In two cases of tonsillitis, one in a girl of 8 years, and the other in a boy of 11 years, the use of anginal tablets resulted in a cure within two days.

Ed.

**535**

**Malignant Disease of Tongue and Mouth.** R. ABBE, *Med. Rec.*, March 15, 1913, p. 461.

Abstracted in *THE LARYNGOSCOPE*, Dec., 1913, p. 1138.

**536**

**Curability of Cancer of the Tongue.** P. BAUDET, *Gaz. des Hop.*, Aug., 1913.

According to the author, the average duration of life in cancer of the tongue is fourteen months, while with operation it is from twenty to

thirty months, with a possibility of complete cure. The author recommends the following procedures: 1. Cancer of the tip or anterior third of the margin, limited to the tongue, Whitehead's operation, preceded by the glandular removal. 2. Middle third of margin, without involvement of gingivo-lingual fold or floor of mouth, Whitehead's operation. 3. Posterior third, not involving floor of mouth, Whitehead's operation. 4. Where the whole tongue is involved but not the floor of the mouth, he insists on the importance of preserving the mylohyoids. 5. Where the floor of the mouth is involved, the growth should either not be touched or should be removed in one block with the tongue, floor of mouth, and contents of both submaxillary and carotid regions, by Kocher's suprahyoid route. Any part of the jaw to which the growth is adherent should be removed. 6. In cancer of the base of the tongue spreading to pillars of fauces, tonsil, epiglottis or the pharyngeal walls he advises against operation. 7. In inoperable growths the author quotes with approval the advice of Kuester to perform ligature of the external carotids, and states that while the growth is retarded but little, there is less tendency to hemorrhage, and the fetid secretion is improved. Ed.

## 539

**Co-existence of Syphilis and Cancer of the Tongue.** CHIFOLIAN and DURAUX, *Ann. des Mal. ven.*, No. 5, 1913.

The authors report a case in a man, aged 44 years, in whom tertiary lesions evolved during the existence of a malignant growth of the tongue. Several injections of neosalvarsan were given but they seemed to stimulate the development of the lingual cancer. Death resulted. Ed.

## 548

**Affections of the Tongue.** F. HENKE, *Ztschr. f. Laryngol.*, Bd. 6, Heft 1, 1913, p. 19.

*Case 1:* Woman, aged 60 years. Primary tuberculosis of the tongue. Formerly always healthy; no history of lues or of tuberculosis; internal organs sound; Wassermann negative. On tip of tongue, next to median line embedded nodule, the size of a bean. Microscopic examination revealed tuberculosis.

*Case 2:* Child with primary lues of tongue. Papules also on right tonsil. Ed.

## 552

**Carcinoma of the Tongue Following Epidermolysis Bullosa (Dystrophic Form).** KLAUSNER, *Arch. f. Dermatol.*, Bd. 116, Heft 1, 1913.

Abstracted in THE LARYNGOSCOPE, Oct., 1913, p. 981.

## 554

**Case of Fibro-angioma of the Tongue.** D. MAC FARLAN.

Original contribution to THE LARYNGOSCOPE, Feb., 1913, p. 131.

## 555

**Actinomycosis of the Tongue Cured by Radium.** MAGNUS, *Med. Klinik*, No. 14, 1913.

Woman of 56 years had, just posterior to tip of tongue, hard growth, size of cherry which protruded mucosa of upper and lower surface of the

tongue. Under local anesthesia, incision which relieved 1 cm. of yellow pus containing many actinomycosis glands. Tamponment. After three days no reduction of infiltration. Then for three consecutive days use of Roentgen rays which resulted in disappearance of growth, closure of wound with only slight infiltration of edges. Ed.

### 562

**Periodical Soreness of the Tongue and Gums.** H. STERN, *Arch. of Diag.*, Oct., 1913.

Stern holds that periodical soreness of the tongue, gums and palate is the most reliable of the early symptoms of pernicious anemia. In two cases of true pernicious anemia and in one still under observation, this symptom was found. Ed.

### 571

**Morphology of Blood in Epidemic Parotitis.** J. H. BARACH, *Arch. of Int. Med.*, Dec., 1913.

As soon as the disease has manifested itself, even before the development of the parotitis, leukopenia is present; when the parotitis is fully developed the leukopenia is marked, the polynuclears are decreased and the mononuclears increased. The eosinophiles are scarcely apparent during the process of the disease. Ed.

### 581

**Two Pathognomonic Symptoms of Pharyngeal Paresthesia.** R. BOTEY, *Arch. intern. de Laryngol.*, May-June, 1913, p. 780.

If the affection be organic, painting the hypo-pharynx with cocaine lessens the symptoms; if it be nervous, this heightens them. In paresthesia pressure on the anterior wall of the larynx increases the discomfort but does not produce symptoms in organic affection. Then also in nervous affections the reflex excitability is decreased. Ed.

### 592

**Differentiation of Phlegmonous Angina and Diphtheria.** G. CHARLIER, *Hygiea*, June, 1913.

Charlier reports on 110 cases of phlegmonous angina and points out the danger of mistaking diphtheria for ordinary tonsillitis or quinsy, and incising. Five fatal cases are recorded in which this was done. History of preceding attacks of peritonsillitis, age of patients, of known contact with diphtheria aid in differentiating. Tenderness of swollen parts of throat is early present in peritonsillitis but not in diphtheria. Ed.

### 593

**Relative Frequency of Cranio-pharyngeal Canal in Infants and Young People.** CITELLI, *Ann. des Mal. de l'Oreille*, No. 4, 1913, p. 338.

This is only a preliminary report in which the author tries to show that there is a direct circulatory connection between the hypophysis and that part of the base of the skull which covers the naso-pharynx. Ed.



**595**

Vincent's Angina. G. H. COCKS.

Original contribution to THE LARYNGOSCOPE, Sept., 1913, p. 929.

**617**

Primary Pharyngeal Sporotrichosis. H. GOUGEROT AND P. QUELLIEN,  
*Paris Med.*, Aug. 9, 1913.

This case is the first one reported of primary pharyngeal sporotrichosis without cutaneous lesions. A woman of 51 showed extensive ulceration of the pharynx and general emaciation. After unsuccessful treatment for syphilis and tuberculosis mycotic disease was suspected. Potassium iodid internally and locally resulted in speedy cure. The organism responsible for the disturbance was found to be the sporotrichum Beurmanni.

Ed.

**640**

Prevention of Mouth-breathing. W. W. JAMES, *Clin. Jour.*, Nov. 5, 1913.

The apparatus (a wire frame over which sheet-rubber is stretched) is placed inside the lips and cheeks resting on outer surface of the teeth and gums. When it is in position mouth-breathing is entirely impossible. The apparatus can be quickly removed and there is no danger of swallowing it.

Ed.

**642**

Membranous Sore Throat. S. A. KELLER, *Jour.-Lancet*, Oct. 15, 1913.

Keller briefly discusses septic sore throat, and describes its clinical symptoms and its differentiation from syphilitic and tubercular infections, from pharyngo-mycosis, malignant disease and herpes. He states that sore throats characterized by the presence of a membrane have a varied etiology and should be classified from a bacteriologic standpoint.

Ed.

**650**

Abnormal Sensations in the Pharynx. T. B. LAYTON, *Practitioner*, Oct., 1913.

Foreign bodies or small local lesions, with or without general lowering of the body-resistance may cause these sensations. Each case calls for individual therapy and should be carefully handled or they may lead to serious disease.

Ed.

**651**

Eczema of the Buccal Commissure a Manifestation of Syphilis.

LAZZARRAGA, *Gac. med. del Sur*, April, 1913.

Lazzarraga calls attention to the observations of Findlay and Ferguson and reports two of his own cases, in which the Wassermann was negative, so that the localization was pathognomonic.

Ed.

**659**

Differential Diagnosis Between Vincent's Angina and Primary Syphilitic

Lesions of the Tonsil. R. LEVY.

Original contribution to THE LARYNGOSCOPE, June, 1913, p. 676.

**662**

Unusual Polypoid Tumor of Pharynx. LIEBAULT and CELLES, *Jour. de Med. de Bordeaux*, Jan. 12, 1913.

Red, smooth tumor which presented from the depths of the pharynx when the patient retched or choked. It was suspended on the right side of pharyngeal wall from a long, thin peduncle. Removal according to Moures technic. Ed.

**669**

Atresia of the Pharynx; Operation; Polypoid Degeneration of Mucosa; Recovery With Good Function. JOHN E. MACKENTY, *Trans. N. Y. Acad. of Med.*, 1913.

Abstracted in *THE LARYNGOSCOPE*, June, 1913, p. 713.

**703**

Fatal Hemorrhage from the Throat. J. D. ROLLESTON, *Brit. Jour. Children's Dis.*, Feb., 1913.

Child said to be suffering from diphtheria admitted to hospital. No history of bleeding in family. Healthy previous to attack of measles five weeks ago. Husky voice, sore throat, with croupy cough, neck glands swollen. On fifth day sudden cough with profuse gush of blood. Marked cyanosis and death within five minutes. Successive cultures from nose and throat did not reveal diphtheria bacilli, only cocci. Autopsy: abscess cavities in both tonsils; ulceration of uvula, soft palate, epiglottis, frenum epiglottiditis, vallecula and ary-epiglottidean folds. Deep ulceration of laryngo-pharynx and superficial ulcers above right vocal cord. Ed.

**732**

Tissue Necrosis and Arterial Hemorrhage Due to Erosion Following Use of Old Novocain Solution in Infiltration Anesthesia. VON GAZA, *Deut. med. Wchnschr.*, No. 16, 1913, p. 746.

Injection of 2 per cent solution of novocain, several weeks old, prior to removing teeth. Severe edema of face and tissue necrosis. Necrotic portion of gum fell away, pronounced hemorrhage from major palatine artery on two occasions, maxillary necrosis and palatal perforation into nasal cavity which healed only after removal of a small sequestrum. The author feels that bacteria of some sort must have grown profusely in the solution and their toxins produced the tissue necrosis. He warns against the use of old solutions. Ed.

**735**

Hydatid of Submaxillary Gland. H. F. B. WALKER, *Brit. med. Jour.*, Jan. 18, 1913.

For last six years slowly growing, pedunculated tumor posterior to left ramus of the maxilla in girl. The growth was mobile, fluctuating, and arched into mouth. The bone was not involved. Upon operation it was found to be located in submaxillary gland; a piece of normal gland tissue was attached to the removed tumor. The cyst contained 79 ccm. of clear fluid, scolices, secondary cyst. For several days there was a saliva secretion from the wound. Recovery. Ed.

**740**

**Case of Diffuse Lympho-sarcoma of the Pharynx.** J. WILHEIM, *Orvosi Hetilap*, No. 24, 1913.

Tumor the size of a small apple which caused dysphagia. Cricotracheotomy. Langenbeck's periodic maxillary resection under local anesthesia. Ed.

**741**

**Lingual and Oral Mucous Membrane Disturbances in Pernicious Anemia.**

F. WISE, *Jour. Cut. Dis.*, Feb., 1913.

Very often the earliest sign of a pernicious anemia is a stomatitis and glossitis; this lends weight to the theory that the disease may be due to oral sepsis. The characteristic feature of the stomatitis is its periodicity. It resists local treatment and appears and disappears without apparent cause. Ed.

**755**

**Simple and Satisfactory Method for Removing Adenoids and Tonsils.**

W. W. CARTER, *Med. Rec.*, May 31, 1913, p. 986.

The author uses a spiral tenaculum to engage the tonsil and pull it toward the median line; with a separator he cuts through the plica and mucous membrane along the margin of the pillars. The tonsil is pried out from its bed, using the separator as a lever. An Eve's snare completes the removal. With one sweep of a Gottstein curette, adenoids are removed and the naso-pharynx wiped out by gauze wrapped around the finger. Ed.

**757**

**Treatment of Vincent's Angina.** J. CITRON, *Berl. klin. Wchnschr.*, April 7, 1913.

Abstracted in *THE LARYNGOSCOPE*, Oct., 1913, p. 971.

**758**

**Sluder Method of Tonsillectomy.** A. M. CORWIN, *Ill. Med. Jour.*, Jan., 1913, p. 48.

Abstracted in *THE LARYNGOSCOPE*, Dec., 1913, p. 1138.

**759**

**Tonsillectomy by the Sluder Method.** A. M. CORWIN, *Jour. A. M. A.*, Sept. 27, 1913, p. 1243.

In this paper the author refutes Dr. Freer's objections to the Sluder operation. Corwin feels that this operation is applicable in all except very rare cases where incomplete measures or inflammatory processes have left the parts found in a network of rigid scars with little tonsil tissue present. The author prefers gas and oxygen anesthesia. Several points of technic are emphasized. Ed.

**767**

**Eight Years of Chloroform Anesthesia in Nose and Throat Surgery.**

CHARLES P. GRAYSON.

Original contribution to *THE LARYNGOSCOPE*, Jan., 1913, p. 61.

**776**

**Practically Bloodless Tonsillectomy.** H. B. HITZ, *Wis. Med. Jour.*, Nov., 1913.

Hitz strongly advocates radical tonsillar removal, in a hospital, and states that 75 per cent of his operations were practically bloodless because of the technic, which he details. Ed.

**780**

**Pedunculated Transplantation of Facial Vein for Stenson's Duct.** J. JIANU, *W. klin. Rundschau*, No. 6, 1913.

Pedunculated transplantation is preferred to the free because it insures greater vitality to the transplanted vessel. In Jianu case the results have been satisfactory for two years. Ed.

**786**

**Tonsillectomy with the Aurelius-Rethi Expressor.** A. LENGYEL, *Arch f. Laryngol.*, Bd. 27, Heft 2, 1913. p. 349.

By this method injury to the palatine arch is avoided, hemorrhage does not take place, and the operation is quicker. Ed.

**788**

**Radio-active Substances in Treatment of Morbid Conditions in Mouth and Teeth.** M. LEVY, *Deut. med. Wchnschr.*, June 5, 1913.

Abstracted in *THE LARYNGOSCOPE*, Jan., 1914, p. 24.

**792**

**Simplified Technic for the Removal of the Faucial Tonsils.** L. F. LONG. Original contribution to *THE LARYNGOSCOPE*, Aug., 1913, p. 838.

**796**

**Technical Remarks on Tonsillectomy.** H. MARSCHIK, *Monatschr. f. Ohrenh.*, Heft 1, 1913, p. 80.

Abstracted in *THE LARYNGOSCOPE*, June, 1913, p. 682.

**814**

**Local Treatment of Vincent's Angina with Salvarsan.** J. D. ROLLESTON, *Practitioner*, Dec., 1913.

Rolleston reports one case of Vincent's angina successfully treated with local application of salvarsan and states that this therapy is simple, safe and sure. Ed.

**829**

**Unusual Bullet Wound of Frontal Sinus.** K. BULKLEY, *Jour. A. M. A.*, Aug. 9, 1913, p. 413.

Girl of 18 years was shot while examining an old pistol. Exploration under ether anesthesia showed the point of entrance through the anterior wall of the frontal sinus. In the posterior wall there was a similar but somewhat larger opening, irregular with comminuted edges. Numerous hairs were wedged in the broken fragments. In the center of this posterior opening on the uninjured dura mater was found a flattened lead bullet of about .32 caliber. This was removed together

with all loose bone-fragments and hair, the wound partially closed, and a loose gauze drain inserted. Recovery. The interest in this case lies in the fact that both bony walls of the frontal sinus were completely penetrated without injury to the dura. The good results were due to the prompt exploration. Ed.

### 835

Two Cases of Frontal Sinusitis With Bone Complications. W. S. KEIR, *Lancet*, March 8, 1913.

*Case 1:* Girl of 19 years. Because of the pain the left frontal sinus was opened and drained. No pus was found. After one week sinus re-opened because of acute pain and fever. Slight osteomyelitis, which soon disappeared.

*Case 2:* Man of 42 years. Chronic frontal sinusitis. At operation, erosion of anterior wall and floor of sinus discovered. *Bacillus pyocyaneus* was only micro-organism found in pus. Ed.

### 836

Sinusitis Frontalis Acuta and Iridocyclitis Acuta; Remarks on the Recognition of Rhinogenous Eye Affections. E. KELLNER, *Monatschr. f. Ohrenh.*, Heft 2, 1913, p. 237.

Abstracted in *THE LARYNGOSCOPE*, July, 1913, p. 786.

### 839

Chronic Frontal Sinusitis with External Rupture. F. O. LEWIS, *Trans. Phila. Laryngol. Soc.*, Nov. 18, 1913.

Abstracted in *THE LARYNGOSCOPE*, Jan., 1914, p. 80.

### 848

Suppuration of the Frontal Sinuses. K. VON LANG, *Beitr. z. klin. Chir.*, Vol. 84, No. 1, 1913.

Frontal sinus suppurations originate in the nose, frequently as the result of coryza or influenza, rarely of neighboring syphilitic or tubercular processes or trauma. The author discusses the course of the disease and its diagnosis and treatment. Ed.

### 850

Cancer of Frontal Sinus. K. WISOTZKO, *Deut. Ztschr. f. Chir.*, Sept., 1913.

Carcinoma of the maxillary sinus is frequent but that of the frontal very rare. The author's case was a man of 54 years. At autopsy a large portion of the dural surface was found involved and the falx major had cancerous infiltrations. It was a case of primary frontal carcinoma; the first symptom was the anterior and downward displacement of the frontal wall and pronounced swelling of the eyelid.

In such cases operative treatment has not been, thus far, successful. Ed.

### 856

Specimens Showing Probable Etiological Relation of Sphenoidal Sinuses to Some Cases of Tic Douloureux. WILLIAM H. HASKIN, *Trans. N. Y. Acad. of Med.*, 1913.

Abstracted in *THE LARYNGOSCOPE*, June, 1913, p. 710.

**857**

**Foreign Body (Instrument) in the Sphenoid Sinus.** I. M. HELLER.  
Original contribution to THE LARYNGOSCOPE, May, 1913, p. 618.

**869**

**Ethmoid Abscess Caused by the Bacillus Fusiformis of Plaut-Vincent.**  
F. H. BRANET.  
Original contribution to THE LARYNGOSCOPE, Dec., 1913, p. 1136.

**870**

**Sarcoma of the Ethmoid.** P. DETAY, These de Montpellier, 1913.  
After discussing the anatomy of the ethmoid and the etiology of ethmoidal sarcoma the author reports four cases, one in a child 12 years (round-celled sarcoma); two cases of fibro-sarcoma in patients of 35 and 56 years respectively; and the fourth patient, 19 years old, had an orbito-nasal sarcoma of ethmoid origin with optic atrophy. Three were operated by Mouret and the fourth by Riche.  
Ed.

**871**

**Diseased Conditions of Ethmoidal Region.** F. EMBERY, Trans. Phila. Laryngol. Soc., March 18, 1913.  
Abstracted in THE LARYNGOSCOPE, Dec., 1913, p. 1172.

**872**

**Osteoma of the Ethmoid Operated According to Moure's Method.** E. ESCAT AND J. BONZOMS, *Rev. hebd. de Laryngol.*, March 1, 1913, p. 241.  
About 125 of these cases are reported in the literature. In this case the patient, 25 years old, complained chiefly of plugging up of the nose and headaches. An osteoma was removed after two trials (by Moure's method); the first trial failed because the instruments were not strong enough.  
Ed.

**873**

**Closed Empyema of Ethmoid Labyrinth Unrecognized for Several Years Due to Closure of Anterior Nares.** W. FREUDENTHAL, Trans. N. Y. Acad. of Med., March 26, 1913.  
Abstracted in THE LARYNGOSCOPE, Oct., 1913, p. 1020.

**881**

**Applied Anatomy and Intra-nasal Surgery of the Ethmoidal Labyrinth**  
H. P. MOSHER.  
Original contribution to THE LARYNGOSCOPE, Sept., 1913, p. 881.

**898**

**Endothelioma of the Maxillary Sinus.** A. CAMINATI, *Gaz. degli Osped.*, March, 1913.  
Clinical and histological study of a case observed in a boy of 14 years. Histologically the tumor proved to be an angio-endothelioma.  
Ed



**899**

**Stone in Antrum of Highmore.** N. B. CARSON, *Interstate Med. Jour.*, March, 1913, p. 242.

Patient, man, aged 67 years. Symptoms: thickening of cheek, exophthalmus of left eye, downward arching of hard palate. Operation revealed tumor in antrum; the anterior wall of the antrum was destroyed. Just over the alveolar border there was a hard, irregularly formed stone about the size of the terminal phalanx of the little finger. The whole superior maxilla and the eye removed. Stone filled with light yellow, hard, granular mass mostly composed of calcium phosphate. The tumor was a pavement-cell carcinoma. Ed.

**903**

**Method of Closing a Sinus Between the Antrum of Highmore and the Mouth.** L. W. DEAN, *Jour. A. M. A.*, Nov. 1, 1913, p. 1613.

The method recommended by Dean has proved successful in 95 per cent of his cases. Ed.

**909**

**Case of Sarcoma of the Antrum.** B. DOUGLASS, *Trans. N. Y. Acad. of Med.*, 1913.

Abstracted in *THE LARYNGOSCOPE*, June, 1913, p. 717.

**914**

**Treatment of Chronic Suppuration of Antrum of Highmore With New Instrument.** E. B. GLEASON, *Pa. Med. Jour.*, April, 1913, and *Monthly Cyclop.*, July, 1913.

Abstracted in *THE LARYNGOSCOPE*, Dec., 1913, p. 1172.

**915**

**Diagnostic and Therapeutic Value of Needle Puncture of the Maxillary Sinus.** H. M. GODDARD, *Pa. Med. Jour.*, April, 1913.

After discussing the technic, value and untoward results, Goddard concludes: (1) that exploratory needle puncture beneath the inferior turbinate is by far the best means of diagnosing antral empyema; (2) that it is a valuable therapeutic measure in all cases of acute suppuration and in many cases of chronic suppuration; and (4) that it is practically safe and should be used in every case of suspected sinus disease. Ed.

**927**

**The Intra-nasal Opening of the Maxillary Cavity.** OSWALD LEVINSTEIN, *Ztschr. f. Laryngol.*, Bd. 6, Heft 3, 1913.

The writer's method is a combination of the best technics in vogue. By submucous elevation he separates the nasal bony wall of the antrum from its muco-periosteum; the latter is then incised and pushed towards the septum. The medial wall of the antrum is then removed special care being taken not to leave a separating ridge between the antrum and the floor of the nose. The maxillary cavity can then be thoroughly inspected and probed. If curetting of the mucous lining of the antrum seems to be indicated, radical operation through the canine fossa must be resorted to. The method described is a conservative one, both as regards the an-

trum and the nasal structures. (While it is already apparent that this method is too conservative when radical treatment of the antrum is indicated, further experience with it will have to prove whether it is not too radical in those cases that may be cured by a real conservative method.—Ref.)

GLOGAU.

### 938

Unusual Case of Osteoma of the Superior Maxilla. M. D. RICHIE.  
Original contribution to THE LARYNGOSCOPE, Feb., 1913, p. 112.

### 976

Some Remote Effects of Chronic Sinus Suppuration. R. C. LYNCH, *New Orleans Med. and Surg. Jour.*, July, 1913.  
Abstracted in THE LARYNGOSCOPE, Nov., 1913, p. 1077.

### 980

Ophthalmological Diagnosis of Diseases of Accessory Sinuses, Especially of Posterior. L. MEYER, *Med. Klinik*, No. 1, 1913.

The author discusses the relation between the accessory sinuses and the porus opticus. He holds that enlargement of the blind-spot is an earlier and more valuable diagnostic symptom of accessory sinus affection than central scotoma.

Ed.

### 987

Inflammatory Affections of Nasal Accessory Sinuses in Children. S. OPPENHEIMER, *Arch. of Ped.*, Jan., 1913, p. 1.  
Abstracted in THE LARYNGOSCOPE, June, 1913, p. 678.

### 991

Sinus Involvement in Nasal Conditions. F. G. REYNOLDS, *N. W. Med.*, June, 1913.

Reynolds points out the large number of cases of nasal affections in which the sinuses are involved as shown by post-mortem findings. Reynolds further points out the relation between nasal, ocular, respiratory, ear and general systemic disorders. Diagnosis and treatment are discussed and five cases reported.

Ed.

### 995

Spirochete Associated with Infections of Accessory Sinuses. R. TUNNICLIFF, *Jour. A. M. A.*, June 7, 1913.

This spirochete may be colored with phenic gentian violet. In four cases it was found in connection with sinus disease; in the fifth, with severe acute rhinitis. Its significance has not been determined.

Ed.

### 996

Hyperplastic Inflammation of the Mucosa of the Accessory Sinuses. UFFENORDE, *Med. Klinik*, No. 9, 1913.

The author reports a case in which he had to perform a radical operation because of the frequent recurrence of polypi removed endo-nasally. The results of the operation, even from a cosmetic point of view, were excellent.

Ed.

**1003**

**Modern History of Accessory Nasal Sinus Disease.** J. WRIGHT.  
Original contribution to THE LARYNGOSCOPE, Feb., 1913, p. 81.

**1004**

**Endo-cranial Complications Following Chronic Accessory Sinus Suppuration.** W. ZEMANN, *Ztschr. f. Laryngol.*, Bd. 6, Heft 4, 1913, p. 545.

Man of 37 years suffered for ten years with catarrh and occluded nares. Lately severe frontal headaches, fever, apathy and fistulous bursting of pus into upper eyelid. Killian operation on left side. Cleansing of frontal and anterior ethmoid cells. Nevertheless temperature rose and stupor increased. Radical operation of right frontal sinus. Mucosa thickened and polypoid; small portion of anterior wall of frontal sinus rough and of yellow-grey color. Left facial paralysis; paralysis of left hypoglossus and left side of body. Death. Autopsy: Necrosis of roof of orbit and ethmoid; meningitis; on upper surface of right anterior frontal pole cortical abscess; in back of these in the region of the frontal fold, two communicating abscesses with smooth pronounced abscess membrane.

Ed.

**1012**

**Treatment of Nasal Sinus Suppuration by Ionization.** J. C. G. MACNAB, *Jour. of Laryngol.*, Dec., 1913, p. 642.

MacNab reports a number of absolute cures by ionization in the most unpromising cases and describes the various technics in the different cases.

Ed.

**1018**

**Value of Roentgen Ray as Diagnostic Aid in Diseases of Accessory Nasal Cavities.** R. H. PARKER, *I. State Med. Soc.*, Sept., 1913.

Parker illustrates the paper with three radiograms, one showing normal sinuses, one empyema of the right antrum and the third empyema of the right frontal and maxillary sinus, and urges the use of the x-ray as a supplement to other diagnostic measures.

Ed.

**1020**

**New Method of Preparing Microscopic Specimens of Sinuses of Face, Especially in Infancy.** C. A. TORRIGIANI, *Arch. intern. de Laryngol.*, March-April, 1913, p. 464.

The stages of the process are as follows: 1. Fixation and hardening in formalin; for the skull of a child of 10 years, for instance, for from four to six days. 2. Washing for one day under running water. 3. Decalcification in a 5 per cent nitric acid solution, for twenty to sixty days. 4. Again washing under running water for one day. 5. Washing in solution of 5 per cent alum for from one to two days. 6. Embedding in gelatin. 7. Cooling. 8. Hardening for five to ten days in 10 per cent formalin.

Ed.

**1022**

**Edema of the Glottis.** G. K. COLLIER, *N. Y. Med. Jour.*, May 3, 1913.  
Abstracted in THE LARYNGOSCOPE, Aug., 1913, p. 824.

## 1029

Primary Carcinoma of the Epiglottis. E. MAYER, *Arch. f. Laryngol.*, Bd. 27, Heft 3, 1913, p. 588.

Mayer reviews the cases cited in the literature and shows how very rare primary carcinoma of the epiglottis is, especially when limited to that part of the larynx. Up to the present time the treatment has consisted of surgical intervention or the use of radium and the x-ray. Two cases are reported:

*Case 1:* Diagnosis, probable malignant disease of the epiglottis. Subsequent history,—primary epithelioma of the larynx; metastasis, laryngectomy; death.

*Case 2:* Man, aged 64. Slight difficulty in swallowing, especially cold liquids. General condition good; edema of uvula, numerous small white spots on tongue and inner surface of cheek; larynx normal. Diagnosis, leukoplakia buccalis. No history of lues. Temporary improvement after treatment, but after seven months; dysphagia, naso-pharyngeal catarrh, and white patches. After three weeks deep ulceration surrounded by thickened mass on laryngeal surface of epiglottis which pathological examination proved to be cylindrical-celled carcinoma. Wassermann strongly positive. Patient anesthetized, suspension laryngoscope placed in position and epiglottis removed. Excessive bleeding on following day checked by sprays of peroxid of hydrogen and ice. Before patient left hospital salvarsan also administered. Cure. Ed.

## 1030

Large Cyst of the Epiglottis. H. MOULTON.

Original contribution to THE LARYNGOSCOPE, Dec., 1913, p. 1139.

## 1033

Two Cases of Subglottic Tumor. R. H. WOODS, *Dublin Med. Jour.*, June, 1913; and *Jour. of Laryngol.*, Oct., 1913.

*Case 1:* Boy of 11 years with granulation mass on right tracheal wall just over the bifurcation. The growth was removed bronchoscopically, in three sittings. The glands at the bifurcations were enlarged but gradually decreased in size. No definite diagnosis could be made by microscopic diagnosis.

*Case 2:* Man of 40 years with tumor under the cords apparently filling lumen of trachea. Removal by external method which showed it to present from the posterior surface of the cricoid cartilage. Diagnosis, carcinoma. Ed.

## 1034

Lesions of a Special Interest for the Localization of Aphasic Disorders.

LA S. ARCHAMBAULT, *Albany Med. Ann.*, March, 1913, p. 125.

Archambault describes two cases clinical and pathologically and concludes: (1) that a lesion of the third left frontal convolution in a right-handed person does not necessarily cause motor aphasia; and (2) that a lesion of the left lenticular region in a right-handed individual is sufficient to produce a marked permanent motor aphasia. Ed.

**1038**

**Standardization of Vocal Training from the Teacher's Standpoint.** H. BROWN.

Original contribution to THE LARYNGOSCOPE, Jan., 1913, p. 21.

**1039**

**Stuttering and Its Treatment.** F. A. BRYANT, *Med. Rec.*, Oct. 4, 1913.

Abstracted in THE LARYNGOSCOPE, Nov., 1913, p. 1096.

**1043**

**Causes of Intermittency in Stuttering.** CHERVIN, *Semaine med.*, May 28, 1913, p. 253.

Chervin says that the frequent disappearance of the stuttering for days or weeks is emotional in origin and treatment should be directed toward training the patient to resist and conquer tendencies to emotional perturbations.

Ed.

**1044**

**Cinematography of the Vocal Cords and Their Laryngeal Annexes.**

CHEVROTON and VLES, *Bull. Med.*, April 5, 1913.

As the results of experiments made by the authors in the laboratory of Prof. Franck, a technic has been developed by which films of laryngeal images can be obtained.

Ed.

**1045**

**Disturbances in Phonation and Articulation in Atrophen Poisoning.**

J. CISLER, *Sbornik lek.*, Nos. 1-2, 1913; and *Ztschr. f. Laryngol.*, Bd. 6, Heft 3, 1913.

Cisler ascertained with the laryngoscope that such disturbances existed in a dog poisoned with atrophin.

Ed.

**1046**

**Congenital Duplication of Vocal Cords.** S. CITELLI, *Boll. delle Mal. dell'*

*Orecchio*, Sept., 1913; and *Arch. f. Laryngol.*, Bd. 27, Heft 3, 1913.

Citelli claims priority for the recognition of this condition. He states that slight forms are to be found in 55 per cent of normal human larynges.

Ed.

**1061**

**Speech-reading, a Guide for Self-instruction.** S. FULLER, *Volta Rev.*, Sept., 1913, p. 253.

In this article the author presents a plan by which one partially or wholly deaf may intelligently study his own mouth either with or without the guidance of a teacher and thus acquire the ability to read the lips of others. The article is profusely illustrated.

Ed.

**1069**

**Result of 18 Years of Research Work on Voice Production and Analysis.**

W. HALLOCK and F. S. MUCKEY.

Original contribution to THE LARYNGOSCOPE, Jan., 1913, p. 5.

**1071**

**Need of a Standard in Voice Production.** W. J. HENDERSON.

Original contribution to THE LARYNGOSCOPE, Jan., 1913, p. 1.

**1072**

**Unilateral Affection of the Vocal Cord.** P. HEYMANN, *Arch. intern. de Laryngol.*, Jan.-Feb., 1913, p. 29.

Heymann points out that monochorditis may be of catarrhal origin and that a diagnosis can only be made after very careful examination and observation. Great caution must be exercised since this condition may be cancerous, luetic or tubercular. Ed.

**1080**

**Report of a Case of Aphthongia.** F. V. LAURENT.

Original contribution to THE LARYNGOSCOPE, Jan., 1913, p. 59.

**1083**

**Defects of Speech; Stammering; Dyslalia.** G. HUDSON-MAKUEN.

Original contribution to THE LARYNGOSCOPE, March, 1913, p. 227.

**1086**

**Correction of Impediments of Speech in Our Public Schools.** H. F. McBEATH, *Jour. A. M. A.*, Nov. 1, 1913, p. 1610.

McBeath severely criticises the indifference with which stammering is regarded. It can easily be corrected in the public schools. Treatment consists in perfecting in the order named the acts of respiration, phonation and articulation. Ed.

**1089**

**Vocal Art Science from the Standpoint of Use and Abuse of the Voice.** F. E. MILLER.

Original contribution to THE LARYNGOSCOPE, Jan., 1913, p. 29.

**1092**

**Human and Animal Voice in Their Relation to the Anatomical Structure of the Larynx.** J. NEMAI, *Arch. f. Laryngol.*, Bd. 27, Heft 3, 1913; and *Orvosi Hetilap*, No. 21, 1913.

The glottis of animals can never be entirely closed; there is always a hiatus intervocalis glottis present. These anatomical conditions account for the circumstance that the animal voice is never truly musical. Animals usually also keep their mouths open while vocalizing. The fact that the hiatus intervocalis is absent and the glottis can be entirely closed accounts for the musical possibilities of the human voice. Ed.

**1113**

**Whisper and Conversational Voice in Their Relation to Each Other.** J. VEIS, *Arch. f. Ohrenh.*, Bd. 90, Heft 3, 1913, p. 200.

The following conclusions are reached: 1. The test of hearing by means of the conversational form in comparison with the parallel test in a whisper is important in cases of marked impairment of hearing (whisper less than 1 cm.), in reference to diagnosis, therapy and prog-



nosis; a test with the whispered voice alone gives no adequate determination of the actual hearing power. 2. In cases of otosclerosis and in many cases of past suppurative inflammation of the middle-ear the conversation tone was heard at a not much greater distance than the whisper, while in cases of labyrinthine deafness and in the exudative process of middle-ear affection the conversational tone was heard much better than the whisper. 3. In this latter case there is more promise of improvement in the general hearing under treatment. 4. Improvement in hearing after middle-ear inflation is usually in regard to conversational tone, that for whisper being only slightly or not at all improved. Ed.

### 1118

**Vibrations of the Vocal Cords.** F. WETHLO, *Stimme*, Aug., 1913, p. 329.

This is a technical and mechanical study of the vibration of the cords with a description of a new apparatus for this study. Ed.

### 1122

**Edema of Larynx and the Micro-biologic Relations.** L. BAR, *Rev. hebdomadaire de Laryngol.*, Aug. 9, 1913; and *Ann. des Mal. de l'Oreille*, No. 7, 1913.

Two cases are reported whose symptoms simulated erysipelatous laryngitis—initial chill, series of slight chills, submaxillary adenopathy with localized pain, febrile conditions with sudden defervescence, oscillations in temperature, and attacks of edematous inflammations. Bacteriological examination showed pneumococci, staphylococci, streptococci, and spirilla. Antiseptic methods were of more therapeutic avail than use of serum. Ed.

### 1124

**Diagnosis and Treatment of Syphilitic Laryngitis.** J. C. BECK, *Jour. A. M. A.*, Sept. 27, 1913.

The various types are enumerated and described, and their relative frequency discussed. Salvarsan is successful in the early treatment. Since this form of laryngitis is not usually painful, local treatment, as resection of chancre, calomel or iodol insufflations, mild solutions of silver nitrate, etc., may be employed. Tracheotomy, incisions of bands, resection of cicatrices with dilatation and, in cases of severe perichondritis causing obstruction, laryngostomy may be indicated. Ed.

### 1137

**Report of Case of Ulceration of Larynx.** J. H. BRYAN, *Ann. of Otol.*, Sept., 1913, p. 811.

Man, aged 42 years, had attack of typhoid and was apparently convalescing when he was thought to take cold and developed a slight laryngitis, and author was called. Laryngoscopic examination showed extensive swelling of right ventricular band which overlapped and partially obscured the corresponding true vocal cord; deep ulceration on under-surface of the ventricular band extending to free margin of true cord. Both arytenoid cartilages were markedly swollen and posteriorly were bathed in a thin, grayish secretion. Left vocal cord moved somewhat on inspiration, leaving a narrowed glottis. Tracheotomy advised; later in day emergency tracheotomy performed but patient died. At

autopsy both arytenoid cartilages were seen completely detached and lying loose in their capsules. This case shows the need of making a regular and systematic examination of the upper air passages, especially of larynx, in all cases of typhoid.

Ed.

### 1141

**Recognition of Early Changes in the Larynx in Tuberculosis.** W. E. CASSELBERRY, *Jour. A. M. A.*, Nov. 15, 1913, p. 1789.

One of the earliest and most distinctive of the initial tubercular changes in the larynx and one which may proceed by years any more active development is the mammillated hyperplasia commencing at or near the subglottic portion of the base of the vocal process and gradually marked by a furrow in the vocal angle. At this stage the prognosis is still hopeful.

Ed.

### 1143

**Congenital Laryngeal Stridor.** CASTELLINI, *Prat. oto-rino-laringoiatrica*, Bd. 13, No. 9, 1913.

This affection, which is also known as respiratory spasm or chronic glottic spasm in children, manifests itself by a peculiar inspiratory and expiratory noise similar to snoring. It is continual and is accompanied by a slight inspiratory sinking in of the basis of the thorax. The author used bronchoscopy under narcosis on such children and found malformations of the larynx, clefts of glottis, malformations of epiglottis or other anatomical changes. Castellini discusses the pathogenesis, diagnosis, prognosis and therapy of these cases.

Ed.

### 1144

**Epithelioma of Larynx.** T. R. CHAMBERS, *Trans. N. Y. Acad. of Med.*, Oct. 22, 1913.

Abstracted in *THE LARYNGOSCOPE*, Dec., 1913, p. 1162.

### 1147

**Epidermolysis Bullosa Hereditaria of the Mucosa.** R. A. COFFIN, *Trans. Am. L. Assn.*, 1913, p. 277.

Coffin reviews the literature of this disease and reports a case in a man of 37 years. The prognosis is favorable as far as life is concerned but the prospect of cure is practically impossible at the present time, although one or two cases have disappeared later in life. Arsenic has been the most successful remedy applied. The differential diagnosis is discussed.

Ed.

### 1148

**Early Laryngology in Philadelphia.** J. SOLIS-COHEN, *Trans. Phila. Laryngol. Soc.*, Nov. 18, 1913.

Abstracted in *THE LARYNGOSCOPE*, Jan., 1914, p. 80.

### 1149

**Pharyngo-laryngeal Psychopathy.** F. J. COLLET, *Ann. des Mal. de l'Oreille*, No. 7, 1913.

Collet describes a case of nervous aphonia in a choreic boy of 11; one of difficult deglutition in a neurasthenic woman of 50; a nervous

cough in a boy of 17 who afterward developed melancholia; paralysis of the palate in a neuropathic elderly woman, and a case of extreme dyspnea in a physician of 50 who passed into a condition of manic-depressive insanity. Collet emphasizes the necessity of extremely careful examination in such cases to exclude organic disease.—*Ex.*

### 1152

**Laryngectomy for Cancer.** G. W. CRILE, *Ann. of Surg.*, Aug., 1913.

Abstracted in *THE LARYNGOSCOPE*, Dec., 1913, p. 1184.

### 1154

**Comminuted Fracture of the Larynx.** D. B. DELAVAN, *Med. Rec.*, Nov. 22, 1913, p. 927.

Delavan records this case of a man who made a living principally by the exhibition of his throat at various medical schools. He had been hanged by a band of outlaws but struggled so desperately that he broke the rope, not, however, without causing a multiple fracture of his larynx. His loud stertorous breathing again attracted the bandits who returned and stabbed him in the abdomen, across the face, over the forehead and straight across the throat between the thyroid and cricoid cartilages, dividing the crico-thyroid membrane. He lay exposed until next morning when he was found severely frost-bitten. He recovered. Ed.

### 1156

**End-results of Two Cases of Laryngeal Carcinomata on Whom an Early External, Conservative Operation Was Performed.** DELLA VEDOVA and L. CASTELLANI, *Ztschr. f. Laryngol.*, Bd. 6, Heft 1, 1913, p. 65.

*Case 1:* Man of 48 years. Hoarseness and cough for last eight months. Epithelioma of left vocal cord was revealed laryngoscopically and verified microscopically. Laryngo-fissure, removal of diseased vocal cord, and tracheotomy under local anesthesia. Recovery after four years. Voice satisfactory due to formation of a connective-tissue band at the site of former vocal cord.

*Case 2:* Man of 60 years; hoarseness since one year. Tumor of right vocal cord which histological examination proved to be epithelioma. Laryngo-fissure and removal of cord under local anesthesia. Recovery.

Ed.

### 1158

**Diagnosis and Treatment of Laryngeal Tuberculosis.** F. L. DENNIS, *Jour. A. M. A.*, Sept. 27, 1913, p. 1219.

Dennis concludes as follows: 1. Sufferers from tuberculosis should have their throats examined early and often, and persistent vigorous treatment should be instituted at the beginning of the trouble in the larynx. 2. Proper attention to the general condition is one of prime importance. 3. Surgical intervention in appropriate cases offers by far the best prospects of permanent relief and not infrequently is of much value as a palliative measure. Ed.

**1163**

**Histology of the Larynx.** ESPINOSA, Inaugural Dissertation, Bern, 1913.

By his elaborate study Espinosa explains disturbance of the voice, secretion and respiration due to laryngeal causes. Ed.

**1167**

**Larynx of Mammals.** V. FRUEHWALD, *Monatschr. f. Ohrenh.*, Heft 2, 1913, p. 149.

In a previously published paper by Albrecht a description of the larynges of the tapir, rhinoceros and elephant was omitted. This description is supplied by Fruehwald in his illustrated article. Ed.

**1170**

**Paralysis of the Recurrent Nerve Due to Circulatory Lesions.** J. W. GLEITSMANN, *Arch. intern. de Laryngol.*, Jan.-Feb., 1913, and *Med. Rec.*, Feb. 22, 1913.

Abstracted in THE LARYNGOSCOPE, Dec., 1913, p. 1145.

**1171**

1. **Tumor of the Larynx.** 2. **Falsetto Voice.** U. GLOGAU, *Trans. N. Y. Acad. of Med.*, 1913.

Abstracted in THE LARYNGOSCOPE, July, 1913, p. 787.

**1173**

**Roentgenization for Non-malignant Laryngeal Vegetations.** A. L. GRAY, *Med. Rev.*, March, 1913, p. 88.

Four cases are reported in which great improvement resulted. In two cases the growths were single, one involving the anterior portion of the right ventricle and right vocal cord, and the other, the middle of the right cord. In the other two cases the growths were multiple, one involving both cords and extending to the epiglottis and trachea; the other was multiple on the right cord. Ed.

**1179**

**Cases Exhibiting Laryngeal Crises.** C. E. IDE.

Original contribution to THE LARYNGOSCOPE, Sept., 1913, p. 936.

**1182**

**Case of Acute Dyspnea in a Child 4 Months Old.** C. J. IMPERATORI, *Trans. N. Y. Acad. of Med.*, May 28, 1913.

Abstracted in THE LARYNGOSCOPE, Dec., 1913, p. 1153.

**1189**

**Chronic Stenosis of Larynx and Trachea—Report of a Case.** C. A. LEAVY. Original contribution to THE LARYNGOSCOPE, Aug., 1913, p. 841.

**1191**

**Development and Extension of the Limits of Laryngology.** G. A. LELAND.

Original contribution to THE LARYNGOSCOPE, Dec., 1913, p. 1121.

**1192**

**Laryngeal Tuberculosis.** R. LEVY, *Jour. A. M. A.*, May 17, 1913, p. 1518.

Levy discusses the frequency, early symptoms, diagnosis and treatment. He advocates rest of vocal cords in conjunction with rest and general hygienic measure, the use of the galvano-cautery, injection or section of the superior laryngeal nerve, and the use of tuberculin. He also urges the securing of proper nasal respiration. Ed.

**1194**

**Fibroma of the Larynx.** F. O. LEWIS, *Trans. Phila. Laryngol. Soc.*, Nov. 18, 1913.

Abstracted in *THE LARYNGOSCOPE*, Jan., 1914, p. 79.

**1200**

**Differential Diagnosis and Treatment of Chronic Laryngitis.** E. MAYER, *Jour. A. M. A.*, Sept. 27, 1913, p. 1215.

As etiological factors Mayer mentions obstructive conditions of the nose, chronic catarrhal conditions of the naso-pharynx which may extend to the larynx, and elongated uvula or its papillomatous tip. Hypertrophied lingual tonsils, follicular pharyngitis, pressure in auditory canal, constitutional digestive and cardiac disturbances, pressure of new growths or enlarged glands, dusty occupations and exposure to gases, alcohol, tobacco, sudden changes in temperature, improper use of voice, etc., are also factors detailed. Treatment and diagnostic methods are discussed. Ed.

**1201**

**The Semon Lectures at the University of London.** P. MCBRIDE, *Jour. of Laryngol.*, April, 1913.

In the first lecture McBride confined himself to personal details and gave historical and biographical data; in the second McBride discussed the significance of Semon's contributions to literature. These lectures were delivered in honor of Sir Felix and in recognition of his position in laryngology. Ed.

**1202**

**Laryngeal Papilloma in a Child.** J. MCCOY, *Trans. N. Y. Acad. of Med.*, March 26, 1913.

Abstracted in *THE LARYNGOSCOPE*, Oct., 1913, p. 1027.

**1206**

**Hemorrhage in Endo-laryngeal Interventions.** MERMOD, *Arch. intern. de Laryngol.*, May-June, 1913; and *Arch. gen. de Med.*, Aug., 1913, p. 677.

Hemophilia, arteriosclerosis, menstruation, and acute inflammatory conditions are contra-indicative to operation. Simple growths bleed little, tuberculous growths bleed more than do the cancerous. The cold snare is less dangerous than the cutting forceps or curettes. If the galvano-cautery be used too roughly or at too intense a temperature, severe hemorrhage may result. Mermod discusses in detail the methods of treatment—heat and cold, styptics, direct or indirect compression, forcipressure, general measures, and surgical measures as tracheotomy or thyrotomy. Ed.

**1218**

**Angioma of the Larynx, Especially Its Relation to Chronic Laryngitis.**

JOHN PHILLIPS, *Am. Jour. Dis. of Children*, Feb., 1913.

Abstracted in *THE LARYNGOSCOPE*, Oct., 1913, p. 971.

**1222**

**Fracture of Larynx Through Blow From Hoof of Horse.** PRINCETEAU, *Jour. de Med. de Bordeaux*, Aug. 10, 1913.

Case of man who was kicked in the right lateral region of his neck by a horse. The iron left its mark on the horizontal portion of the inferior maxilla and on the right side of the laryngo-tracheal tube. Slight vomiting of blood, syncope, dyspnea and intense wheezing. In view of the absence of hemorrhage, displacement of the fragments, hematic edema of the cords or sub-glottic displacement, laryngectomy following suture of the cartilaginous fragments was not performed. The patient recovered though he still has a slight hoarseness which is agitated by a slight grating of the left arytenoid.

Ed.

**1225**

**New Method of Examining Larynx and Trachea Roentgenographically.**

A. RETHI, *Ztschr. f. Laryngol*, Bd. 6, Heft 1, 1913, p. 27.

A film is placed directly behind the larynx in the hypo-pharynx and the exposure is made backwards. The film must be cut the right size and packed properly; the pharynx and hypo-pharynx must be properly anesthetized. In the skiagram the body of the hyoid bone, the body of the thyroid, the false and true cords, the sinus and occasionally the glottis are discernible. Recurrent paralysis, stenosis, malignant disease, etc., can be determined in this way.

Ed.

**1227**

**Angioma of the Larynx.** H. O. RUH, *Am. Jour. Children's Dis.*, Feb., 1913.

Child of 9 months. Following measles, hoarseness, croupous cough, dysphagia, inspiratory stridor and finally pneumonia. Death. Autopsy revealed laryngeal angioma.

Ed.

**1230**

**Case of Hodgkins Disease With Pressure Symptoms on Larynx and Esophagus.** WM. A. SCRUTON, *Trans. N. Y. Acad. of Med.*, Jan. 22, 1913.

Abstracted in *THE LARYNGOSCOPE*, June, 1913, p. 715.

**1235**

**Grippal Laryngeal Stenosis Cured by Fibrolysis.** N. THIBERGE, *New Orleans Med. and Surg. Jour.*, Sept., 1913, p. 225.

A child of 2½ years gradually developed cyanosis, due to exposure, necessitating tracheotomy. The culture showed only grip; 160,000 units were administered without benefit but with little anaphylaxis. The inability to dispense with the tube due to ankylosis of the aryteno-cricoid joint was relieved by injecting fibrolysin.

SCHEPPEGRELL.



**1238**

**Case of Laryngeal Growth.** S. W. THURBER, *Trans. N. Y. Acad. of Med.*, March 26, 1913.

Abstracted in *THE LARYNGOSCOPE*, Oct., 1913, p. 1022.

**1243**

**Study of Innocent Growths of the Larynx Illustrated With Eight Cases.** J. W. WOOD.

Original contribution to *THE LARYNGOSCOPE*, March, 1913, p. 161.

**1247**

**Celluloid Doll in Left Bronchus.** BALTAR CORTES, *Rev. espan. de Laringol.*, Jan.-Feb., 1913.

By means of Bruenings' tubes the author successfully removed a celluloid doll which had been in the left bronchus for two months.

Ed.

**1258**

**Almost Total Section of Trachea in a General Paralytic.** CHALIER AND BOVER, *Lyon Med.*, April 27, 1913.

The trachea was almost entirely cut through; the large vessels, however, were not injured. Severe hemorrhage from thyroid which was also injured. Only the perichondrium was sewed together; the skin wound was left open to avoid emphysema.

Ed.

**1260**

**Broncholith, Bronchial Calculus or Lung Stone.** W. F. CHAPPELL, *Trans. Am. L. Assn.*, 1913, p. 253.

Woman, aged 52, complained of throat trouble for some time but not serious until she was suddenly seized with an attack of wheezing accompanied by spasmodic attacks of coughing, intense tickling in her throat and slight expectoration. A few days later, severe coughing fit and small calcareous mass expelled; tickling relieved but wheezing continued. After another few days large calcareous piece expectorated during coughing spell which relieved all the symptoms. After few months another calculus was coughed up which joins with former and forms a round piece, the size of a nickel. Chemically it consists of phosphate of lime.

Ed.

**1262**

**Removal of a Foreign Body from the Inferior Secondary Left Bronchus** CHEVAL, *Soc. clin. des Hop. de Brux.*, April 19, 1913.

Child of 5 years aspirated a shoe-button; attempted extraction through the tracheotomy wound. X-ray showed the foreign body in the sixth left inter-costal space. Removal by lower bronchoscopy. Recovery.

Ed.

**1264**

**Intra-tracheal Insufflation Anesthesia.** F. J. COTTON AND W. M. BOOTHBY, *Ann. of Surg.*, Jan., 1913.

Abstracted in *THE LARYNGOSCOPE*, Oct., 1913, p. 1038.

**1269**

**Emergency Tracheotomy.** A. DENKER, *Med. Klinik*, Jan. 5, 1913.  
Abstracted in *THE LARYNGOSCOPE*, Aug., 1913, p. 866.

**1287**

**Primary Carcinomata of the Air Passages.** P. HEYMANN, *Ztschr. f. Laryngol.*, Bd. 6, Heft 5, 1913, p. 735.

Because of the slow growth an erroneous diagnosis of bronchial asthma was at first made. Tracheoscopy revealed tumor on anterior tracheal wall to the right of its union with right bronchus. By the direct method a specimen was excised, examined microscopically and found to be carcinoma. By Gluck's method the whole trachea was removed and prosthesis performed after fourteen days, consisting of inserting an elastic drainage tube which was fastened around the neck. The man (aged 26 years) is at work. Ed.

**1307**

**Tracheal Obstruction Due to Thymus.** H. L. LYNNAH, *Arch. of Ped.*, Sept., 1913.

In the case of this boy, aged  $3\frac{1}{2}$  years, the dyspnea was relieved by intubation but returned after removal of the tube and mother refused to permit surgical intervention or re-intubation. It is interesting to note that this child received two injections of antitoxic sera without anaphylaxis, and that, though asthmatic since birth, the child had never had convulsions. Ed.

**1309**

**Tracheal Obstruction Due to Thymus Enlargement.** JOHN E. MACKENTY, *Trans. N. Y. Acad. of Med.*, Jan. 22, 1913.  
Abstracted in *THE LARYNGOSCOPE*, June, 1913, p. 712.

**1310**

**Difficult Decanulement Due to Curvature of Tracheal Wall.** M. MASSINI, *Jahrb. f. Kinderh.*, Bd. 76, 1913, p. 402.

Boy of  $1\frac{1}{2}$  years with valve stenoses of the trachea. Intubation without results; finally Schmieden's bougie canula employed with success. The administration of diphtheria serum often makes it possible to remove the canula after twenty-four hours and thus prevent stenosis. Ed.

**1342**

**Unusual Case of Leech in the Trachea.** A. ZOGRAFIDES, *Monatschr. f. Ohrenh.*, Heft 1, 1913, p. 65.

Patient was a hunter, 40 years old. Diagnosis of laryngeal tuberculosis was made because of the dyspnea, attacks of coughing, bloody expectoration, and dysphagia. A leech was discovered in the larynx but it fell into the trachea upon attempted removal. It was finally removed by tracheoscopy. Ed.

**1346**

Early Diagnosis of Cancer of the Esophagus. A. BASSLER, *Jour. A. M. A.*, April 26, 1913, p. 1283.

Abstracted in THE LARYNGOSCOPE, Sept., 1913, p. 957.

**1350**

Open Safety-pin in Esophagus of Baby Three Months Old. T. L. BLACKBURN, *Med. Jour. South Africa*, Sept., 1913, p. 46.

No disturbance in digestive or respiratory organs. Radiograph showed open pin in esophagus point up, toward the middle of sternum. After eight days pin pushed to pylorus and two days later stomach opened and pin removed; suture of wall of stomach; rapid recovery. Ed.

**1354**

Foreign Bodies in the Esophagus. C. G. COAKLEY, *Trans. Am. L. Assn.*, 1913, p. 248.

Boy of 16 years swallowed a piece of the plate, while eating soup. X-ray showed foreign body in larynx; temperature of patient 105° F.; rapid pulse and suspicious pneumonic areas in right lung. Esophagoscopy removal; death after fourteen hours from acute septic pneumonia. The other case reported is that of a child who swallowed a coin, the size of a quarter which remained in the esophagus for five days without even interfering with deglutition. Recovery. Ed.

**1359**

Congenital Occlusions of the Esophagus and Lesser Bowel. G. H. EDINGTON, *Glasgow Med. Jour.*, July-Aug., 1913.

Abstracted in THE LARYNGOSCOPE, Jan., 1914, p. 51.

**1375**

Removal of Foreign Bodies from Upper End of the Esophagus. R. H. JOHNSTON.

Original contribution to THE LARYNGOSCOPE, July, 1913, p. 761.

**1390**

Foreign Body (Set of Teeth) Tolerated in the Esophagus Without Much Reaction for 27 Days. G. LIEBAULT, *Rev. hebdomadaire de Laryngol.*, April 5, 1913, p. 401.

Abstracted in THE LARYNGOSCOPE, Aug., 1913, p. 818.

**1391**

Esophageal Tuberculosis, a Critical Review. L. B. LOCKARD.

Original contribution to THE LARYNGOSCOPE, May, 1913, p. 561.

**1396**

Some Interesting Esophageal Cases. W. P. MILLSPAUGH.

Original contribution to THE LARYNGOSCOPE, Sept., 1913, p. 938.

**1403**

**Spasms of Esophagus.** J. O. RABASA, *Arch. intern. de Laryngol.*, March-April, 1913, p. 430.

Girl of 16 years complained of gastric disorder. Examination showed spasm of both upper and lower end of esophagus. The author found that a sub-cutaneous morphin injection prior to the esophagoscopy was very valuable. Ed.

**1426**

**Removal of Foreign Body from Esophagus. Removal of Foreign Substance from Both Bronchi.** S. YANKAUER, *Trans. N. Y. Acad. of Med.*, Jan. 22, 1913.

Abstracted in *THE LARYNGOSCOPE*, July, 1913, p. 790.

**1428**

**Clinical Results of Nasal Treatment in Asthma.** W. J. ABBOTT, *Cleveland Med. Jour.*, March, 1913.

Abstracted in *THE LARYNGOSCOPE*, Sept., 1913, p. 957.

**1444**

**Anaphylaxis and Asthma.** J. MATTHEWS, *Med. Rec.*, Sept. 20, 1913, p. 512.

In 90 per cent of the cases treated within the last four years, Matthews states that the principal lesion was in the upper air tract. Chronic sup-puration or retention of mucoid secretions in the nose or accessory sinuses occurred in the majority of the cases. Each case requires individual therapeutic measures and, according to the author, permanent cure is doubtful, for susceptibility remains throughout life and the symptoms re-occur whenever there is production and re-absorption of the specific antigen to which the individual is sensitive. Ed.

**1455**

**Bronchoscopy and Esophagoscopy.** A. E. BULSON, *Ind. State Med. Assn. Jour.*, April, 1913.

Abstracted in *THE LARYNGOSCOPE*, Sept., 1913, p. 954.

**1459**

**Foreign Body in Right Bronchus; Lower Bronchoscopy; Successful Ex-traction.** G. H. COCKS, *Med. Record*, July 5, 1913.

Abstracted in *THE LARYNGOSCOPE*, Oct., 1913, p. 1031.

**1462**

**Personal Observations with Suspension Laryngoscopy.** W. FREUDENTHAL, *Med Rec.*, Feb. 22, 1913.

Abstracted in *THE LARYNGOSCOPE*, Jan., 1914, p. 54.

**1467**

**Two Fatalities in Bronchoscopic Removal of Foreign Bodies.** V. HINSBERG, *Ztschr. f. Ohrenh.*, Bd. 68, Heft 2-3, 1913, p. 180.

*Case 1:* Woman of 36 years swallowed plum-pit; suffocating attacks. X-ray examination did not reveal foreign body. Bronchoscopy showed pit in the main bronchus. In removing it with a claw-forceps, it slipped at

the epiglottis; dyspnea and cyanosis. Bronchoscopy revealed pit in left upper lobe of the bronchus and main bronchus. Very difficult breathing. Death on next day. At autopsy the right lung was found to be very much contracted; in the right upper lobe bronchus the pit was found, firmly embedded. To guard against the danger of the foreign body escaping at the epiglottis the author recommends the Bruenings' bronchial protector.

Case 2: Boy of 14 swallowed collar button. Roentgen plate showed button in the left lung behind the sixth rib near the vertebral column. Bronchoscopy showed it embedded in granulation tissue wholly occluding lumen of bronchus, various methods of removal failed. During an attempt to remove it with blunt-pointed tenaculum severe hemorrhage resulted. Death.

Ed.

**1470**

Foreign Body in Larynx and Trachea Removed by the Aid of the Suspension Laryngoscope. S. IGLAUER.

Original contribution to THE LARYNGOSCOPE, June, 1913, p. 706.

**1471**

Suspension Laryngoscopy With Report of Cases. S. IGLAUER.

Original contribution to THE LARYNGOSCOPE, June, 1913, p. 683.

**1474**

Recent Progress of Endoscopic Methods as Applied to the Larynx, Trachea, Bronchi, Esophagus and Stomach. C. JACKSON.

Original contribution to THE LARYNGOSCOPE, July, 1913, p. 721.

**1475**

Recent Cases of Esophagoscopy, Bronchoscopy and Laryngoscopy. R. H. JOHNSTON, *Am. Jour. of Surg.*, July, 1913.

The first case, a little girl, had swallowed a penny; the second, man of 39 years, was a case of stricture at the upper end of the esophagus which was gradually dilated with graduated olive points; the third, a boy of 7, swallowed a grain of corn which lodged in the right bronchus and was removed by bronchoscopy; the fourth, a boy of 2, aspirated a water-melon seed which was removed with tracheoscope; in the fifth case a papilloma was removed from the left vocal cord by the indirect (mirror) method from a man of 30 years, and later a large tumor mass from the right false cord.

Ed.

**1476**

Probable Tumor of the Lung Diagnosed by Upper Bronchoscopy. R. H. JOHNSTON.

Original contribution to THE LARYNGOSCOPE, Feb., 1913, p. 115.

**1478**

Some Original Endoscopic Methods. R. H. JOHNSTON.

Original contribution to THE LARYNGOSCOPE, May, 1913, p. 607.

**1485**

New Principle in Esophagoscopy and Gastroscopy. R. LEWISOHN, *Ann. of Surg.*, Jan., 1913.

Abstracted in THE LARYNGOSCOPE, May, 1913, p. 591.

**1187**

Removal of a Dime from the Larynx After Eighteen Months by Direct Laryngoscopy. J. E. MACKENTY, *Trans. N. Y. Acad. of Med.*, March 26, 1913.

Abstracted in *THE LARYNGOSCOPE*, Oct., 1913, p. 1025.

**1488**

Removal of a Stick-pin from Bronchus. J. S. MACNIE, *Jour.-Lancet*, Aug. 15, 1913.

The pin was localized by the x-ray and stereoscope and removed by means of the bronchoscope. The chief difficulty was to enter the point of the pin into the lumen of the bronchoscope, but it was eventually extracted by means of a long Killian-Little alligator-jaw forceps. The only disturbance the pin had caused was an occasional coughing fit. Ed.

**1504**

Tracheo-bronchoscopy for the Removal of Foreign Body. J. R. ROGERS, *Mich. State Med. Soc. Jour.*, April, 1913.

Girl of 15 swallowed two-inch belt pin. At first mild paroxysm of coughing but later no dyspnea and very slight dysphagia. Radiographic plates revealed indefinite location. Tracheoscopy; tube passed into both bronchi but pin not found. A week later tracheoscopy again performed and pin located in depth of bronchus and removed. No ill-effects. Ed.

**1506**

Pin Imbedded in Bronchus Removed by Inferior Bronchoscopy. SARGNON and VIGNARD, *Lyon Med.*, April 13, 1913.

The point was imbedded in the bronchial mucosa; the glass head was not visible. The point was freed and the pin extracted. The authors mention how little danger there is in careful tracheotomy without anesthesia and how much easier such a procedure makes all subsequent work. Ed.

**1510**

The Extended Application of Killian's Suspension Laryngoscopy. A. SEIFFERT, *Ztschr. f. Laryngol.*, Vol. 6, No. 4, 1913.

By means of a special distension speculum the writer removed foreign bodies from the hypo-pharynx and esophagus. He also succeeded in performing bronchoscopy and esophagoscopy and in removing foreign bodies from the trachea while the patient's head was suspended by Killian's instrument. The writer had suspension laryngoscopy performed on himself and considers it a very pleasant procedure. GLOGAU.

**1511**

Safety-pin Removed from Larynx of Child by Direct Laryngoscopy. H. SMITH, *N. Y. Med. Jour.*, Aug. 16, 1913.

Abstracted in *THE LARYNGOSCOPE*, Nov., 1913, p. 1097.

**1514**

Direct Laryngoscopy, Trachei-bronchoscopy and Esophagoscopy. A. L. TURNER and J. S. FRASER, *Edin. Med. Jour.*, Jan.-Feb., 1913, p. 6.

Abstracted in *THE LARYNGOSCOPE*, July, 1913, p. 760.



**1519**

**Surgical Treatment of Laryngeal Tuberculosis.** N. ARNOLDSON, *Arch. f. Laryngol.*, Bd. 27, Heft 1, 1913.

Thirty-four cases are reported. The immediate results were usually good, but did not remain so, permanently. Arnoldson discusses minutely indications and contra-indications in the various affections in the various parts of the larynx. In forty-two cases of amputation of the epiglottis improvement was marked so that this procedure is advocated in cases where the dysphagia is due to epiglottic disease. Ed.

**1520**

**Galvano-plastic Treatment of Tuberculosis of the Larynx.** L. BAR, *Arch. intern. de Laryngol.*, Sept.-Oct., 1913, p. 386.

Mermod's method is highly recommended. Bar, however, mentions certain contra-indications—nervousness of patient, laryngeal stenosis, etc. Ed.

**1527**

**Best Method of Removing Larynx.** R. BOTEY, *Arch. ital. de Laryngol.*, July 15, 1913, p. 111.

Abstracted in THE LARYNGOSCOPE, March, 1914, p. 218.

**1530**

**Case of Complete Laryngectomy Under Cocain Anesthesia.** F. D. BOYD, *Tex. State Jour. of Med.*, May, 1913.

A solution of 0.5 of 1 per cent cocain was used. The patient was instructed to raise his forefinger when there was the slightest pain and then more cocain was injected. Hajek's technic was employed. Ed.

**1535**

**Removal of Singer's Nodes by Orthoscopic Method.** BUYS, *La Policlin.*, April 1, 1913.

The epiglottis was painted with a cocain solution and the superior laryngeal nerve anesthetized with injection of novocain and alcohol. However, chloroform had also to be used since the patient could not tolerate the introduction of the tube (Hill's). Result excellent. Ed.

**1536**

**Experimental Surgery of the Trachea** C. CALDERA, *Arch. ital. di Otol.*, Jan., 1913, and *Arch. f. Laryngol.*, Bd. 27, Heft 2, 1913.

Caldera demonstrated by experiments on animals that transverse tracheal wounds are not dangerous if infection be avoided and if the margins of the wound be carefully adjusted. An isolated piece of trachea joins itself to the upper and lower stump with the help of connective tissue and this also happens even when the piece has been isolated as long as two days. Ed.

**1566**

**Calcium Bromid in the Treatment of Laryngo-spasm and Tetany.** B. GRUENFELDER, *Therap. Monatsch.*, June, 1913.

After a two years' experience with calcium bromid, the author recommends it, feeling that it is a more rapid narcotic than other bromid salts. The spasms usually disappeared in a few days when 2.0 g a day were administered. Ed.

## 1567

**Tracheo-bronchial Injection in Asthma Treatment.** GRUENWALD, *Muench. Med. Wchnschr.*, No. 25, 1913, p. 1377.

With the laryngeal syringe 1 ccm. of a 1:10,000 solution of suprarenin (adrenalin) is injected through the glottis into the trachea. One injection suffices to abort an attack of idiopathic bronchial asthma and prevent recurrence for months. This method has not, however, proved successful in reflex asthma or in hay-fever. Ed.

## 1571

**Surgical Treatment of Post-diphtheritic Tracheal Stenosis.** HAGEMANN, *Med. Klinik*, No. 38, 1913.

Stenosis simply due to diphtheria has not been observed; it is either consequent to tracheotomy or, as in the present cases, to intubation. The tubes remained *in situ* for three weeks; decubital ulcers, cartilaginous necrosis and finally stricture. Operative treatment of stenoses with post-operative dilatation with bougies. The children wore cannulae during this time. One case recovered, another can only go for three weeks without the cannula because of recurring stenosis, and in the third the treatment was unsuccessful. Ed.

## 1575

**Endobronchial Treatment of Bronchitis and Asthma.** *Monatschr. f. Ohrenh.*, Heft 1, 1913.

In our country, Horn (San Francisco), and Freudenthal (New York), are the only ones that published observations on the bronchoscopic treatment of asthma. European literature on the subject is quite extensive and authors like Pieniazek, H. von Schroetter, Nowotny, A. Galebsky, Ephraim, Sobernheim and others apparently obtained good results by this method.

The writers of this article treated 30 cases of asthma and bronchitis. The ages of the patients varied from 14 to 68 years and the disease was almost in every case of several years standing. In 28 cases the bronchoscopic tube was introduced and the medicine applied by means of Bruening's spray. Only in two instances Ephraim's flexible spray was resorted to. The medicaments used were mostly Ephraim's mixture (20 cg. novocain, 1 g. 1 per cent adrenalin and 0/9 per cent salt solution); in some instances Schleich's solution with adrenalin or 3 per cent cocain-adrenalin solution. The treatments were repeated eight to ten times in every case.

Of the three cases of bronchitis, one was cured, one improved and the third one remained unchanged.

Of the 27 cases of bronchial asthma, 6 were cured, 11 improved and 12 not influenced at all by the endo-bronchial treatment. Local inspection in the cases of bronchitis revealed a strongly injected, dark-red swollen and bulging mucous lining. The lumen of the bronchi was contracted and disappeared almost at expiration and coughing. In bronchial asthma the trachea and main bronchi were apparently normal. The writers therefore presume that the underlying pathologic changes are probably located within the smaller bronchi that are hidden from view.

The contested question whether the injected medicine or the mechanical action of the bronchoscope was responsible for the therapeutic effect,

was finally decided by the writers. In two control cases they injected once sterile water and the other time no medicine at all. In both instances the treatment was followed by the same symptoms of relief. The mechanic and expectorant action of the bronchoscopic tube is, after the opinion of the writers, the main therapeutic agent. The injected medicine is only of minor importance; it influences by its anemic action the vasomotor changes of the mucosa and quiets by its anesthetic effects the terminal filaments of the vagus. Thus both secretion and muscular spasm become attenuated.

GLOGAU.

**1580**

**Epiglottic Suture; Its Value in Indirect Laryngoscopy.** C. HORSFORD, *Brit. Med. Jour.*, May 3, 1913, p. 928.

For facilitating intra-laryngeal operations this procedure should be used whenever the epiglottis hinders a delicate intra-laryngeal manipulation. It may also be used in the diagnosis if other methods of lifting the epiglottis have failed.

ED

**1582**

**Laryngotomy and Plastic Operation for Formation of Adventitious Vocal Cords.** C. JACKSON, *Trans. N. Y. Acad. of Med.*, May 28, 1913.

Abstracted in *THE LARYNGOSCOPE*, Dec., 1913, p. 1154.

**1583**

**Technic of Insertion of Intra-tracheal Insufflation Tubes.** C. JACKSON, *Surg. Gynecol. and Obstetr.*, Vol. 17, 1913, p. 507.

Jackson summarizes the following points to be observed: 1. The patient should be fully under the anesthetic by the open method so as to get full relaxation of the muscles of the neck. 2. The patient's head must be in full extension, with the vertex firmly pushed down towards the feet of the patient, so as to throw the neck upward and bring the occiput down as close as possible beneath the cervical vertebrae. 3. No gag should be used nor necessary. 4. The epiglottis must be identified before it is passed and the speculum passed sufficiently below its tip to prevent the latter from slipping. 5. Too deep insertion must be avoided, for then the speculum goes posterior to the cricoid and the cricoid is lifted exposing the mouth of the esophagus. This is bewildering until sufficient education enables the operator to recognize the landmarks.

ED.

**1584**

**Tracheotomy With Lantern Slide Demonstrations.** C. JACKSON, *Trans. Phila. Laryngol. Soc.*, Sept. 23, 1913.

Abstracted in *THE LARYNGOSCOPE*, Jan., 1914, p. 71.

**1594**

**Modification in Technic of Laryngectomy.** LAZARRAGA, *Arch. de Rinol.*, Nov.-Dec., 1913, p. 342.

Tracheotomy is first performed. After the larynx has been isolated the trachea is incised at the first ring and the tracheal stump wrapped in a piece of gauze. The larynx is cut from below upward and the tracheal walls sewed up. This method has been introduced by Mackenzie and is similar to that of Rueda.

ED.

**1598**

- Treatment of Chronic Stenosis of Larynx and Trachea.** H. L. LYNNAH,  
*Boston Med. and Surg. Jour.*, May 22, 1913.  
 Abstracted in *THE LARYNGOSCOPE*, Oct., 1913, p. 1033.

**1603**

- Treatment of Laryngeal Tuberculosis.** M. MENIER, *Ztschr. f. Laryngol.*  
 Vol. 6, Heft 2, 1913; and *Pensiero Med.*, Feb. 2, 1913.  
 The silence cure dates back to 1838 and was introduced by Colombat.  
 Tracheotomy in the treatment of laryngeal tuberculosis was first de-  
 scribed by Carmichael in *Dublin Medical Journal*, 1833. Ed.

**1609**

- Alcohol Injections Into Superior Laryngeal Nerve in Tuberculous Laryn-  
 gitis.** W. MITHOEFER, *O. State Med. Jour.*, July, 1913, p. 315.  
 The presence of a painful spot at a point where the internal branch  
 of the superior laryngeal nerve pierces the thyro-hyoid membrane is a  
 positive indication. A needle, not too sharp, is inserted  $1\frac{1}{2}$  cm. over the  
 painful spot. The needle is then turned upward and outward toward the  
 ear and 15 to 20 drops of 80 per cent warm alcohol are injected. This  
 therapy is valuable in the aryteno-epiglottic type of tuberculosis. Ed.

**1610**

- Surgical Treatment of Laryngeal Stenosis Following Double Recurrent  
 Paralysis.** J. MOLINIE, *Le Larynx*, May, 1913; and *Rev. hebdomadaire de  
 Laryngol.*, Sept. 13, 1913.  
 Molinie has performed his operation on cadavers and on one case in the  
 living. The purpose of this technic is to diminish the antero-posterior  
 and increase the transverse diameter of the larynx. The thyroid carti-  
 lage is exposed and split in the median line and an incision made into  
 each thyroid plate parallel to the median line about 5 mm. from it. In  
 the one case reported, only partial relief was obtained but the author re-  
 gards the procedure as harmless and capable of producing the desired  
 results. Ed.

**1613**

- Radium in Treatment of Cicatricial Stenosis of Esophagus.** F. NEUMANN.  
*W. klin. Wchnschr.*, Nov. 20, 1913.  
 Neumann reviews the previous methods of treating cicatricial stenosis  
 of the esophagus, discusses their respective advantages and then dis-  
 courses on the use of radium from which he feels permanent cure will  
 result. Ed.

**1628**

- New Method of Treating the Dysphagia of Laryngeal Tuberculosis.** A.  
 SAUPIQUET, *Rev. hebdomadaire de Laryngol.*, Sept. 27, 1913, p. 377.  
 The mucosa and perichondrium covering the arytenoids are removed  
 at intervals of about two days and glycerin and insufflation of orthoform  
 applied to resulting wounds. This procedure is continued until the en-  
 tire mucosa and perichondrial covering of the arytenoid region is con-  
 verted into scar tissue. Several cases are reported in which the dys-  
 phagia was overcome, and the respiration and general condition of the  
 patient improved. Ed.

**1637****Advantages of Supplementing Laryngectomy With Gastrostomy.**F. TOREK, *Zntrbl. f. Chir.*, Dec. 27, 1913.Abstracted in *THE LARYNGOSCOPE*, Jan., 1914, p. 69.**1646****Note on a Circumscribed Epidemic of Diphtheria.** H. M. ADLER, *Boston Med. and Surg. Jour.*, Feb. 6, 1913.

Adler reports a circumscribed epidemic of diphtheria with an interesting accompanying illustration supporting his claim that extension of the disease was by contact.

BERRY (MOSHER).

**1658****Diphtheria Bacilli in Secretions of Nose and Throat in Infants With Nutritional Disturbances.** E. CONRADT, *Muench. Med. Wchnschr.*, March 11, 1913.Abstracted in *THE LARYNGOSCOPE*, July, 1913, p. 769.**1660****Changes in Hypophysis in Diphtheria.** G. CREUTZFELDT AND R. KOCH, *Virchows Arch.*, Vol. 223, No. 1, 1913.

In seven cases of death from cardiac involvement in diphtheria profound changes in the pars intermedia of the hypophysis were found. Diphtheria bacilli injected into guinea-pigs also produced these changes. The author, therefore, recommends a combined epinephrin-hypophysis extract therapy in diphtheritic cardiac involvement.

Ed.

**1672****Sore Throat and Diphtheria.** H. I. GOLDSTEIN, *N. J. Med. Jour.*, Feb., 1913.

Goldstein discusses the nature, etiology, symptomatology and treatment of tonsillitis vs. the symptomatology and treatment of diphtheria.

Ed.

**1674****Diagnosis and Treatment of Diphtheria.** J. B. GREENE, *Boston Med. and Surg. Jour.*, June, 19, 1913.

Greene feels that serums should be used in the presence of symptoms of diphtheria even if the examination proves negative. He thinks larger doses than those usually recommended should be given. Intubation is always preferable to tracheotomy. Carriers must be isolated.

Ed.

**1699****Symptoms and Diagnosis of Diphtheria.** L. J. MENVILLE, *N. Orleans Med. and Surg. Jour.*, July, 1913.Abstracted in *THE LARYNGOSCOPE*, March, 1914, p. 191.**1712****Remarks on and Results of Twenty Cases of Laryngeal Diphtheria Requiring Tracheotomy.** C. E. PURCELL.Original contribution to *THE LARYNGOSCOPE*, Aug., 1913, p. 849.

**Herpes With Diphtheria.** F. REICHE, *Med. Klinik*, Aug. 31, 1913.

In 336 (6.96 per cent) of 4,830 cases of diphtheria herpes was observed. The eruption was more frequent in the older patients and usually appeared on the third day of the illness. Ed.

**1727****Chronic Diphtheritic Infection of Lungs.** A. SCHMIDT, *Muench. med. Wchnschr.*, Jan. 7, 1913.

Schmidt gives the case-history of a woman of 62 years whose sputum constantly contained pure cultures of diphtheria bacilli while the tonsils remained free. The infection was of perhaps ten years' duration. Animal tests showed the bacilli to be of the avirulent type. Apparently no one in the family was infected. Ed.

**1741****Diphtheria of Stomach and Diphtheria Onychia.** F. E. TYLECOTE, *Brit. Jour. Children's Dis.*, May, 1913.

Boy of 3 years, first seen on fifth day with very severe attack of diphtheria. Temperature subnormal and appearance very toxic; false membrane covering posterior pharyngeal wall, tonsils, uvula and almost whole of soft palate and extending forward on hard palate almost to teeth. Antitoxin administered. Death on tenth day. Autopsy. Unusual findings, but stomach mucosa covered with typical diphtheritic membrane. The author regards it as a typical case of diphtherial gastritis. Ed.

**1767****Depressor Substance in Serum of Blood of Patients With Exophthalmic Goiter.** J. M. BLACKFORD AND A. H. SANFORD, *Am. Jour. Med. Sci.*, Dec., 1913, p. 796.

The authors used serum from twenty-eight exophthalmic goiter cases, and also serums from normal individuals, from patients having goiters without apparent intoxication, and from patients with an apparently long-standing intoxication presumably due to adenomata of the thyroid, but only the serums of patients with active symptoms of exophthalmic goiter and with markedly hyperplastic glands, microscopically demonstrated, produced in the injected dogs definite symptoms of cardiovascular depression. Ed.

**1840****Abderhalden's Test in Disease of the Thyroid.** A. E. LAMPE AND R. FUCHS, *Muench. med. Wchnschr.*, Sept. 30, 1913.

The authors used this test in sixty cases in which the thyroid was abnormal and found that the serum from exophthalmic goiter patients induced a constant positive reaction with tissue from the thyroid of patients with exophthalmic goiter. The serum of the myxedematous as well as that from endemic goiter cases likewise disintegrated ordinary thyroid tissues. The ferments elaborated in their conditions are apparently very specific. Ed.



**1862**

**Thyroid in Pregnancy.** J. W. MARKOE AND L. A. WING, *Bull. Lying-in Hosp. of City of N. Y.*, June, 1913.

Of the 1,000 cases observed 550 were primiparae and 450 multiparae; of the 97 cases of enlarged thyroid found, 64 were primi- and 33 multiparae. In seven primi- and one multiparae family histories of goiter were present; in six there was history of menstrual disturbance. Brief details of 98 cases are given. Ed.

**1891**

**Pole Ligation for Hyperthyroidism.** PEARSON, *Dublin Jour. Med. Sci.*, July, 1913.

Abstracted in *THE LARYNGOSCOPE*, Jan., 1914, p. 44.

**1930**

**Laryngo-tracheal Manifestations of Thyroid Disease.** O. J. STEIN.  
Original contribution to *THE LARYNGOSCOPE*, March, 1913, p. 176.

**1937**

**Goiter from the Standpoint of the Specialist.** M. B. TINKER.  
Original contribution to *THE LARYNGOSCOPE*, Aug., 1913, p. 854.

**1950**

**Ligation of Superior Thyroid for Goiter.** I. WATSON, *O. Dom. Jour. of Med. and Surg.*, March, 1913.

Local anesthesia should be used whenever possible. The patient should rest in bed several days prior to the ligation; one hour before the operation morphin or morphin and hyoscin is given to prevent psychic shock and quiet the patient. The author states that simple and conservative operations are increasing, for they always lessen the symptoms, even if they do not effect a cure. Ed.

**1957**

**Pathology of Simple and Exophthalmic Goiter.** L. B. WILSON, *Med. Rec.*, Aug. 30, 1913.

Proper detailed pathological study permits of a correct diagnosis in 95 per cent of the cases, of the stage of the disease in 80 per cent, and of its severity in 75 per cent. Non-toxic goiter can thus, too, be diagnosed in 75 per cent of the cases. The clinical toxic non-exophthalmic type is the most difficult to diagnose. Our knowledge of these cases is still too incomplete to permit of conclusions about the details of pathology. Ed.

**1968**

**Staphylococcus-spray Treatment of Diphtheria Carriers.** A. M. ALDEN, *Jour. A. M. A.*, June 14, 1913, p. 1876.

The following conclusions are stated: 1. No patient who has had diphtheria should be released from quarantine until at least two consecutive negative cultures are obtained from both nose and throat, and from ear if symptoms are present. Some other local application besides

the antitoxin is necessary to rid the throat and nasal passages of the diphtheria bacilli. 2. In fifteen of sixteen cases the staphylococcus-spray effectively cleared the throat of these bacilli after other methods failed, without harmful effects resulting from the use of the spray. Ed

### 1972

**Internal Treatment of Exophthalmic Goiter.** W. H. BECKER, *Deut. med. Wchnschr.*, Sept. 11, 1913.

A few months of conservative treatment with rest, tonics and specific measures should be tried before operation is undertaken. Becker tried this internal treatment in several interesting cases and found, upon re-examining them after seven years, that they were permanently benefited and in good health. Ed.

### 1979

**Roentgen Rays in the Treatment of Goiter.** M. BLITSTEIN, *Prakt. Arzt.*, No. 7, 1913.

While the author used the roentgen rays effectively in four cases of goiter, a fifth case, that in a woman of 44 years, showed even after the first treatment peculiar symptoms, such as fever, headache, debility and quickening of pulse-rate. Ed.

### 2000

**New Anti-diphtheritic.** FREUND, *Deut. med. Wchnschr.*, Nov. 27, 1913.

This new remedy which is not to supplant but merely to reinforce the serum is said to be a powerful bactericide and to prove itself especially effective in cases of bacteria carriers. Ed.

### 2005

**Thyroid Medication in Children.** M. B. GORDON, *N. Y. Med. Jour.*, April 26, 1913.

All the cases showed some improvement—increase in weight, greater mentality, etc. Untoward effects, such as progressive diarrhea, increased salivation or perspiration, tachycardia, irritability of temper, or skin changes as appear in myxedema, occurred in some cases. Ed.

### 2024

**Surgical Aspects of Goiter.** URBAN MAES, *New Orleans Med. and Surg. Jour.*, July, 1913.

Abstracted in *THE LARYNGOSCOPE*, Nov., 1913, p. 1077.

### 2056

**Treatment of Diphtheritic Stenosis of the Larynx.** N. I. USPENSKY, *Pediatrics*, Vol. 4, No. 6, 1913.

The author reports on 2,760 cases; in 1,436 intubation or tracheotomy was indicated; 559 patients died. In infants under one year, the mortality is the highest and in such patients intubation is to be preferred; 37.4 per cent recovered after intubation and only 4.2 per cent after tracheotomy. In children over two years gangrene never resulted from the intubation. Ed.

**2059**

**Technic for Bacteriologic Diagnosis of Diphtheria.** G. WAGNER, *Muench. med. Wchnschr.*, March 4, 1913.

The Conradi-Troch telluride plates are an improvement over the Loeffler because of the greater ease with which the diphtheria colonies are found. They need not, however, be used in conjunction with the Loeffler serum.

Ed.

**2060**

**Treatment of Diphtheria and Diphtheria Carriers.** S. G. WILSON, *N. Orleans Med. and Surg. Jour.*, Sept., 1913.

Abstracted in *THE LARYNGOSCOPE*, Feb., 1914, p. 148.

**2063**

**Cirroid Aneurysm of the Auricle.** BELLOTI, *L'Osped. Mag.*, Feb., 1913.

Large cirroid aneurysm of the auricle in boy of 11 years;; not painful but feels hot. The auricle is covered with bluish protuberances; synchronous pulsations with those of radial pulse. Compression of the carotid does not diminish size of tumor.

Ed.

**2064**

**Multiple Papilloma of Both External Auditory Canals.** BLEYL, *Ztschr. f. Ohrenh.*, Bd. 68, Heft 2-3, 1913, p. 176.

In factory worker of 24 years deafness of long standing, itching in ear, and sensation of small swellings in canal. Examination showed small wart-like excrescences occupying the right anterior wall of the cartilaginous portion of the canal and scattered along the left border. Canal filled with fetid yellowish-white secretion; drum membrane negative. Removal of small growths (15); trichlorid acid applied; no recurrence. Microscopically the tumors showed a similarity to laryngeal papillomata.

Ed.

**2067**

**Congenital Malformation of the External Ear, Upper Lip and Palate.** I. CASTELLANI, *Prat. oto-rino-laringoatrica*, March, 1913, p. 62.

Child of 6 years with slight congenital cleft in upper lip. The inner upper incisor tooth had not cut through and the other teeth were irregular. Also cleft in hard and soft palate; partial ankyloblepharon with complete absence of cilia. Atypical clefts of both ear lobules, congenital aural fistula and defect of the cauda helix and of the upper part of anthelix, and a pronounced projection of anthelix. The author discusses the mechanism of these anomalies and their probable etiology.

Ed.

**2069**

**Peculiar Case of Multiple Papillomata of Auditory Meatus.** P. CITELLI, *Ann. des Mal. de l'Oreille*, No. 10, 1913, p. 297.

The new disease of the auditory meatus described by Citelli is characterized by: (1) the presence of numerous papillomata implanted throughout the canal; (2) a purulent, foul-smelling discharge due to maceration of desquamated epithelium with fermentation of stagnant

fluid among the excrescences; and frequently by (3) deafness. The papillomata are pointed; they may originate in canal and thence invade the tympanum or in the meatus and be continually irritated by the discharge from a pre-existing chronic otitis media. The prognosis is good and the surgical treatment relatively easy. Ed.

## 2070

**Traumatic Atresia of the External Auditory Meatus of the Left Ear With Mastoid Complications.** ERNST DANZIGER.

Original contribution to THE LARYNGOSCOPE, Sept., 1913, p. 948.

## 2072

**Orthyngroma Nephriticum, a Hitherto Undescribed Disease of the Ear Lobe.** O. GLOGAU, *Jour. A. M. A.*, Jan. 11, 1913, p. 123.

This name is applied by the author to a case of bilateral elongation of the ear lobe due to edema following acute nephritis. The patient objected to removal of a piece for examination, but Glogau feels that there is an analogy between this condition and othematoma. Ed.

## 2074

**Removal of Fibro-myxoma Which Occluded Auditory Canal; Hemophilia.** M. D. LEDERMAN, *Ann. of Otol.*, June, 1913.

The growth appeared in a female, 30 years of age. Previous history of chronic aural suppuration, with large growth removed from same left ear ten or more years ago, when bleeding was checked only after considerable difficulty.

Present examination revealed a growth filling the external auditory meatus, with the free end projecting. Foul-smelling secretion bathed the foreign tissue. No other inflammatory symptoms were found. As the previous history showed the lack of fibrin ferment, calcium lactate was given for four days before attempting the removal of the growth.

The fibrous polyp was removed without difficulty with the aural snare under local anesthesia. For a few minutes after the operation there was but little bleeding. In about ten minutes some oozing of blood was seen which was not controlled by adenalin soaked gauze or pressure. Other remedies were employed locally without success, until 10 ccm. of Mulford's horse-serum were injected into the arm, and though the needle-puncture bled for a few minutes the oozing from the ear ceased in twenty minutes. The next day on attempting to cleanse the ear at the Polyclinic Hospital, where the patient was sent for observation, bleeding reappeared but was checked by packing. Forty-eight hours after the injection large hemorrhagic urticaria appeared over the right thigh and arm which lasted a week causing considerable annoyance because of intense itching, (anaphylaxis). Good results followed the removal of the growth. A. A.

## 2076

**Furunculosis of the External Auditory Canal.** OLIVER A. LOTHROP, *Boston Med. and Surg. Jour.*, Oct. 30, 1913, p. 645.

The author discusses furunculosis of the external auditory meatus and recommends the constant sterilizing of the escaping pus and of the

canal wall by the use of alcohol, or alcohol with boric acid. He inserts a wick of cotton or gauze nearly to the drum and filling the lumen. This he saturates with the alcohol solution, and gives some to the patient instructing him to keep the wick wet. This wick is daily changed by the physician. The treatment is continued for a time after apparent cure, to ensure against reinfection.

BERRY (MOSHER).

## 2090

### Diseases of the Middle Ear and Mastoid Cells Based upon a Study of 454 Autopsies and 2232 Cases of Diphtheria, Scarlet Fever and Measles.

C. B. C. BORDEN, *Boston Med. and Surg. Jour.*, Feb. 13, 1913.

Because of the remarkably extensive experience and material Borden cites from, this paper becomes an authoritative utterance. From this series of 2232 cases, 11 per cent of the scarlet fever cases showed aural complications, 28 per cent of the measles cases, and only 2.9 per cent of the diphtheria cases. On the other hand, of the cases with fatal termination, 32 per cent of the diphtheria cases had aural complications, 94 per cent of the scarlet fever cases, and 100 per cent of the measles cases; but contrary to expectation the order is reversed when we consider these aural complications as involving the mastoid:—31 per cent of the fatal diphtheria cases showed mastoid involvement, 26 per cent of the scarlet fever cases, and but 14 per cent of the measles cases. Of the 59 fatal cases having mastoiditis, 33 of them were bilateral. There were, strangely, but one infected jugular vein, four cases of septic meningitis, and not a single brain abscess.

The aural discharge in scarlet fever and measles was described as yellow, white, or creamy pus; that in diphtheria as small in amount, thick, tenacious, gummy, gelatinous, or semi-solid. The bacteriological reports showed the usual great variety of infecting organisms, rarely in pure culture. The nasal sinuses were rather frequently involved.

"In measles, middle ear and mastoid symptoms occur during the height of the active process, and adults are particularly liable to mastoiditis. In scarlet fever, middle ear involvement comes at any time during the course of the disease, and is by no means limited to the active stage. Adults are not especially liable to mastoiditis in scarlet fever. In diphtheria, otitis media or mastoiditis are not as active as in scarlet fever or measles, and the diagnosis is far more difficult to make for this reason."

Particularly difficult is it to diagnose these beginning mastoid conditions in young children and especially when under two years of age. The classical symptoms may be all or nearly all absent, and only autopsy tell the attendant of the feared complication. The autopsy records plainly demonstrate that pus may be present in the middle ear or mastoid without swelling of the drum membrane or edema over the mastoid. Newer methods of diagnosis must be resorted to, but have not as yet proved entirely adequate to the need. Of these, it is doubtful whether the x-ray can prove of real and practical service. The Mosher transillumination method seems to offer the best possibilities, but its use calls for greater intimacy and efficiency in the hands of the examiner than has as yet been developed.

Differing from the self-limited infectious diseases, if we have pus confined in the aural cavity or mastoid, a matter of a few hours makes a material difference, as free drainage alone permits the escape of pus and a consequent non-absorption of the injurious toxins which may weigh down the balance in favor of a fatal termination. Hence, when the diagnosis is made, prompt and if necessary frequently repeated remedial measures are indicated. Remedies that will hide symptoms, such as ice bags, are distinctly contra-indicated. Over-conservatism will jeopardize the life of the patient. Experience shows that very sick cases bear ether anesthesia if such is indicated, better than would be expected and far better than the toxins which the confined pus is emptying into the system.

The author adds an interesting theory, that in these cases the middle ear and neighboring cavities may well be the primary focus from which infection spreads into the system. The tonsil has been commonly considered a frequent offender on this score, and the author suggests that the anatomical relationships of the middle-ear cavities are so nearly analogous in their lymph supply, as to favor the thought that many infections are primarily in the middle ear following a "cold," and spread from there direct to the lymph and blood stream and so over the system.

BERRY (MOSHER).

### 2093

**Blue Tympanic Membrane.** CANEPELE, *Arch. ital. di Otol.*, Jan., 1913, p. 1.

*Case 1:* Girl of 15 with symptoms of an acute right-sided middle-ear inflammation. Otoscopy showed blue color of tympanic membrane in posterior half while the anterior quadrant presented a grayish color. This blueness disappeared after spontaneous perforation of the drum membrane and was replaced by red color, but later the blueness again appeared.

*Case 2:* Boy of 16 years who had symptoms of stenosis of the Eustachian tube. The anterior half of the right membrane was reddish and on the margin between the anterior and posterior quadrant there were two blue patches.

As causes Canepale mentions: (1) Forward arching of the jugular bulb; (2) extravasation of blood into tympanum; (3) presence of hyphomycetes; (4) presence of gelatinous exudate in the tympanum; (5) varicose veins in tympanic membrane.

Ed.

### 2094

**Topography of the Tympanic Cavity.** CAVANAUGH, *Ann. of Otol.*, Sept., 1913, p. 699.

The topographical anatomy of the tympanic cavity is exhaustively described; a resume of the development of the temporal bone is given. This is followed by detailed description of measurements of the various diameters of the tympanic cavity, anomalies in size and shape and the relationship of adjacent vital structures. Dehiscences in the tegmen diverticula from the floor, occasional absences of the posterior wall in its upper part and other irregularities of the cavum tympanum are noticed.



The position of the drum membrane and the relationship of the tegmen tympani is emphasized. The ossicles and all vascular nerve and muscle contents of the tympanic cavity are minutely described.

A series of four plates, with numerous illustrations accompanies this exhaustive article. GOLDSTEIN.

### 2095

**Genesis and Significance of Giant Cells Apropos of Some Cases of Polypi in Middle Ear.** CIPOLLONE and BELANCIONI, *Pathologica*, July 1, 1913

Because of their genesis, topography, form, trauma from neighboring tissues and degeneration it is necessary to regard the giant cells as elementary in the degenerative process. ED.

### 2096

**Regeneration of the Membrana Tympani.** G. M. COATES.

Original contribution to THE LARYNGOSCOPE, June, 1913, p. 692.

### 2097

**Difference in Prognosis in Meso-tympanal and Epi-tympanal Middle-ear Inflammations.** H. COHNSTAEDT, *Ztschr. f. Ohrenh.*, Bd. 69, Heft 3-4, 1913.

The author reports on 630 cases of acute middle-ear suppuration. Of these 61 (9.6 per cent) were epitympanal; antrotomy was performed on 19 (31.1 per cent). Of the 569 meso-tympanal cases 552 (97.1 per cent) recovered without complication; 17 were operated. ED.

### 2099

**Sarcoma of Middle Ear, Especially of Petrous Portion of Temporal Bone.**

W. DOEDERLEIN, *Arch. f. Ohrenh.*, Bd. 92, Heft 1-2, 1913, p. 124.

This form of tumor is not rare but thus far, according to the author, the published reports have been incomplete without histological data. Doederlein contributes detailed reports of two cases:

*Case 1:* Woman, of 37 years, in whom the tumor had destroyed a portion of the vestibule and cochlea. Post-mortem microscopic findings showed tumor of giant cells.

*Case 2:* Child of 2 years in whom a petro-mastoid operation had been performed. Cicatrization bad; irregular fleshy papules indicative of syphilis. Wassermann positive, but salvarsan injection produced no improvement. Later a diagnosis of fibro-sarcoma was made. No autopsy permitted. ED.

### 2102

**Acute Lesion of the Tympanic Membrane Due to the Use of the Telephone Receiver.** E. FABRI, *Boll. delle Mal. dell' Orecchio*, March, 1913.

Abstracted in THE LARYNGOSCOPE, Dec., 1913, p. 1148.

### 2103

**Middle-ear Suppuration and Novoform.** M. FALTA, *Monatschr. f. Ohrenh.*, Heft 9, 1913, p. 1182.

The author reports five cases in which novoform was used with excellent results. Falta feels that this drug is non-poisonous, it does not irri-

tate the mucosa, decrease secretion, nor produce retention by forming clumps with the secretion. It is also very hygroscopic. Ed.

### 2105

**Blue Tympanic Membrane.** L. FORNARI, *Prat. oto-rhino-laringoiatrica*, Nov. 30, 1913, p. 282.

Case of a man of 39 years. The blueness of the membrane was due to a hematoma which resulted from repeated syringing of ear for removal of cerumen. Ed.

### 2106

**Determining Factors in Tinnitus Aurium.** E. P. FOWLER.  
Original contribution to THE LARYNGOSCOPE, March, 1913, p. 182.

### 2107

**Fatal Mediastinitis Due to Retro-pharyngeal Abscess Following Acute Purulent Otitis Media.** S. GATSCHER, *Monatschr. f. Ohrenh.*, No. 5, 1913, p. 679.

Patient entered hospital five weeks after attack of influenzal otitis; three days later antrotomy because of burrowing-abscess. The following day tense infiltration of floor of mouth involving epiglottis; after a day laryngeal stenosis. Mediastinotomy disclosed fact that pus had traveled from retro-pharyngeal cavity anteriorly around base of tongue to anterior portion of larynx and thence to right side of mediastinum. Death on following night. Ed.

### 2108

**Pyelitis and Otitis Media in Infants.** F. GLASER and H. FLIESS, *Deut. med. Wchnschr.*, July 24, 1913.  
Abstracted in THE LARYNGOSCOPE, Nov., 1913, p. 1058.

### 2111

**Suppuration of Middle Ear and Amyloid Degeneration.** F. GROSSMANN, *Passows Beitr.*, Bd. 6, Heft 3, 1913, p. 252.

Case of acute suppurative otitis media with sinus thrombosis (operated) and subsequent peri-bulbar abscess and pyemia. Autopsy showed pronounced amyloid degeneration in spleen, liver and intestines. The author suggests this as a possibly frequent complication and urges that post-mortem examinations in such cases be not limited to the head. Ed.

### 2112

**Optic Disc in Purulent Otitic Disease and Its Complications.** E. GRUENING, *Arch f. Ophth.*, March, 1913.

Gruening feels that too little attention is paid to optic neuritis and choped disc—two pathologic conditions which occasionally complicate purulent otitic affections. Their exact differentiation has an important bearing on the diagnosis, prognosis and treatment. Choped disc is the ophthalmoscopic manifestation of increased intracranial pressure and its early recognition is essential. Ed.

**2114****Perforated Ear Drum Possibly Responsible for Sudden Death in Water.**

A. GUETTICH, *Med. Klinik*, Nov. 16, 1913.

Passow has already called attention to a possible temperature irritation in the internal ear just from coldness of water which results in irresistible vomiting or collapse under the water. The force of the water in diving or a wave dashing against the ear may burst a weakened tympanic membrane. Persons with perforated membrane should be warned against diving and bathing in too cold water; their ears should be plugged with oiled cotton.

Ed. \*

**2120**

**Acute Otitis Media.** G. C. KNEEDLER, *Pittsburgh Med. Jour.*, April, 1913, p. 21.

In this paper Kneedler discusses the exciting causes, external and internal influences, prognosis and treatment of acute otitis media from the general practitioner's view-point.

Ed.

**2123**

**Primary Tuberculosis of the Middle Ear.** C. H. LONG.

Original contribution to *THE LARYNGOSCOPE*, June, 1913, p. 700.

**2126**

**Complications of Acute Middle-ear Suppuration.** G. W. MACKENZIE, *Hahnenmann, Monthly*, May, 1913.

Mackenzie points out the more frequent complications of acute middle-ear suppuration, some of which are often considered of minor importance but which lead to major operations and urges care in their early recognition.

Ed.

**2127**

**Suggestions to the General Practitioner Concerning Acute Middle-ear Suppuration.** G. W. MACKENZIE, *Hahnenmann Monthly*, March, 1913, p. 175.

Mackenzie discusses etiology, pathology, course, symptoms, otoscopic findings and treatment of acute middle-ear suppuration.

Ed.

**2128**

**Reflex Contraction of the Tensor Tympani in the Human.** E. MANGOLD and A. ECKSTEIN, *Arch. f. gesam. Physiol.*, Bd. 152, Heft 11-12, 1913, p. 589.

In a series of selected patients the authors report observations on the voluntary contraction of the tensor tympani as compared with reflex contraction of this muscle and conclude that such reflex tensor contractions produce much slighter excursions of the membrana tympani as indicated by a lesser volume of air measured in the auditory canal by photomanometry.

In a series of tuning-fork experiments the reflex tensor contractions varied in intensity with the pitch and difference in irritability in the tone produced. Tensor contractions do not guard against unpleasant tone sensations. Subjective after-effects of intense and high-pitched tone stimuli are not dependent on continuous and active tensor contractions.

GOLDSTEIN.

**2145**

**Acute Suppurative Otitis Media Due to Bacillus Typhosus.** J. J. THOMAS and D. A. PRENDERGAST, *Cleveland Med. Jour.*, May, 1913.

Typhoid bacillus found in pus from middle-ear. Ten days after paracentesis the suppuration ceased, but two weeks later meningeal symptoms developed. Lumbar puncture fluid showed streptococci. Fatal due to streptococcal meningitis. Ed.

**2146**

**Acute and Chronic Suppuration of the Middle Ear.** G. L. TOBEY, *Boston Med. and Surgical Jour.*, Dec. 11, 1913, p. 871.

The paper is introduced with a reference to the greater importance now being attached to otitic suppuration and is presented "not as a scientific thesis, but merely to bring to your attention certain points in the recognition, treatment and prognosis of the aural suppurations, which may be of value to you in the practice of general medicine."

Of more especial interest to otologists are some of the data referred to. The author finds "at least 90 per cent of aural infections are secondary to a primary infection of the nose or throat;" that "acute otitis occurs in 20 per cent of the cases in scarlet fever, in 10 per cent of the cases of diphtheria, and in 7 to 8 per cent of the cases of measles;" and that "in cases of lateral sinus thrombosis, ligation of the internal jugular vein and the evacuation of the lateral sinus is followed in 80 per cent of the cases by recovery. BERRY (MOSHER.)

**2157**

**Direct Dilatation of the Eustachian Tube.** GIERSEWSKI, *Deut. med. Wchneschr.*, June 19, 1913.

Six cases are reported in which the author dilated the tube by means of a metal dilator made the exact size and shape of the tube. Yankauer and Laval have employed similar technic. Ed.

**2159**

**Relation of Eustachian Tube to Chronic Catarrhal Otitis Media.** HAROLD HAYS, *N. Y. Med. Jour.*, Feb. 15, 1913.

According to Hays' observation there is narrowing of the Eustachian tube in 95 per cent of the cases usually due to changes in the upper air tract. Hays' treatment consists in cocaineizing the entire tube and inserting a specially devised, thin sound which he leaves *in situ* for half an hour. After this dilation is regularly undertaken, and if this is ineffective, various medications are injected into the middle ear (10 per cent argyrol solution, etc.). Ed.

**2162**

**New Method of Dilating Tube by the Direct Method.** A. VON GYERGYAI, *Orvosi Hetilap*, No. 17, 1913; *Rev. hebdomadaire de Laryngol.*, Sept. 27, 1913; and *Deut. med. Wchneschr.*, Vol. 25, 1913.

From casts of the Eustachian tube obtained post-mortem, the author had metal dilators made which, used in conjunction with his instrument previously described, enable him to treat the tube visually. He reports good results in the treatment of six patients. Ed.

**2163**

**Direct Examination of the Eustachian Tube and Naso-pharynx.** J. W.

WOOD, *Jour. of Laryngol.*, Nov., 1913, p. 568.

By means of the Holmes' naso-pharyngoscope, post-nasal mirror, Eustachian catheter and bougie, and finger, an analysis was made of the naso-pharyngeal findings in 650 cases, mostly aural. The subject-matter is classified into: 1. Deformities and abnormalities of the mouth of the tube. 2. Injuries, paralysis and foreign bodies. 3. Inflammatory conditions; (a) acute simple salpingitis, (b) subacute salpingitis, (c) acute edematous salpingitis, (d) simple chronic salpingitis, (e) chronic hypertrophic salpingitis, (f) chronic atrophic salpingitis, (g) chronic granular salpingitis. 4. New growths, simple and malignant. 5. Adenoids. 6. Various conditions, varicose veins. Ed.

**2169**

**Injuries of the Labyrinth.** J. AUERBACH.

Original contribution to THE LARYNGOSCOPE, Sept., 1913, p. 950.

**2178**

**Bone-conduction in Lues.** OSCAR BECK, *Monatschr. f. Ohrenh.*, Heft 8, 1913.

Beck is famous the world over through the investigations he made on the acoustic and static apparatus of luetic patients. He is considered such an authority in this special work of our field that at the Dermatological Clinic of the Wiener Allgemeines Krankenhaus no salvarsan injection is made before Beck examines both the static and acoustic apparatus and declares salvarsan indicated in the respective case.

In this article Beck describes a new early symptom of lues that may be present even before the Wassermann test is positive. When, in an otherwise normal ear, the bone-conduction is considerably shortened the case is one of lues. He reports a large series of syphilitic cases where this symptom was almost regularly present and mentions two cases where it helped in establishing the diagnosis of lues, long before any other syphilitic symptoms had appeared. This characteristic shortening of the bone-conduction usually occurs at a time when the localized syphilis develops into a general one, but it may be met with at an earlier stage of the disease. The cause of this shortening of the bone-conduction is the increased intra-cranial and intra-spinal pressure. This increased pressure causes simultaneously dizziness and disturbances of equilibrium such as have been frequently described by the writer.

The writer succeeded in making exact measurements of the decrease in bone-conduction by Prof. Urhantschitsch's electrically vibrating tuning fork. The time seems to be near when the invasion of syphilis may be "heard" by the otologist long before its symptoms are seen by the dermatologist.

GLOGAU.

**2179**

**Fistula Symptoms in Non-suppurative Affections of the Auditory Apparatus.** O. BECK, *Ann. des Mal. de l'Oreille*, No. 9, 1913, p. 229.

Report of two cases in which compression and aspiration of air in the external auditory canal produced ocular movements; the one, a case of

hereditary syphilis, showed by compression a slight deviation of the eyes, the other, one of acquired syphilis, presented nystagmus with rotatory and horizontal components. The author concludes that in syphilis there are definite labyrinthine complications and that changes in this organ affect the endolymph. Ed.

## 2180

**Comparative Anatomy of the Membranous Labyrinth.** C. E. BENJAMINS, *Ztschr. f. Ohrenh.*, Bd. 68, Heft 2, Bd. 69, Heft 3; 1913; and *Nederlandsch. Tijdschr. v. Geneesk.*, June 7, 1913.

Benjamins offers proof of the existence of a fourth crista in the labyrinth of vertebrate animals (including man), which is located in the inferior sinus of the utricle, near the ampulla of the posterior semi-circular canal. Retzius first studied this small organ but he called it the "macula neglecta." The author proves that the organ is not a macula but a crista; in lower vertebrates it is a well-developed fourth crista; in man it is more or less rudimentary. Ed.

## 2183

**Tumor of the Acoustic Nerve.** J. BERLSTEIN and NOWICKI, *Monatschr. f. Ohrenh.*, Heft 3, 1913, p. 415.

The clinical history is carefully recorded as well as the hearing test findings. The tumor was as large as an egg and seemed to develop from the auditory meatus. Atrophy of cochlea and vestibular nerve with all the clinical sequelae of these lesions; facial nerve only slightly attenuated and from the clinical manifestations seemed to be intact. The trigeminus and abducens were not affected. Ed.

## 2191

**Localization of Auditory Center.** W. BOYD and J. S. HORWOOD, *Lancet*, June 14, 1913.

During life the patient's hearing was apparently perfect though he had auditory hallucinations. At autopsy it was found that greater part of the left temporal lobe of the left cerebral hemisphere was replaced by a large cyst containing a clear colorless fluid. The destruction was very extensive, involving whole of the temporal lobe except the third and anterior extremities of the second and first convolutions, the latter bearing the anterior gyrus of Heschl on its upper surface; arteriosclerosis of vessels at the base of the brain. Sections of brain examined, but no abnormalities found. Ed.

## 2192

**Labyrinthitis After Three Injections of Salvarsan.** BRINDEL, *Jour. de Med. de Bordeaux*, Dec. 14, 1913.

Case of labyrinthine deafness in man who had received three intravenous injections of salvarsan three days after syphilitic infection. The deafness was unusual in that sharp sounds were heard but not deep ones. The author feels that the deafness resulted from the therapy. Ed.



**2202**

- Diagnosis of Suppuration of the Labyrinth.** G. M. COATES, Trans. Phila. Laryngol. Soc., Feb. 18, 1913.  
Abstracted in THE LARYNGOSCOPE, Nov., 1913, p. 1115.

**2212**

- Case of Syphilitic Labyrinthitis.** EVELY, *La Policlin.*, Feb. 15, 1913, p. 58.  
After intensive injections, facial paralysis and left-sided deafness developed; fourteen days later labyrinthine symptoms and right-sided deafness. The author raises the question as to whether salvarsan affects the auricular nerve or whether mercurial treatment should be instituted.  
Ed.

**2214**

- Local Autogenous Temperature Variations a Cause of Labyrinthine Vertigo.** E. P. FOWLER, *Med. Rec.*, June 21, 1913.  
Abstracted in THE LARYNGOSCOPE, Nov., 1913, p. 1058.

**2216**

- Injurious Effect of Loud Noises on the Organ of Hearing.** H. FRIEDENWALD, *Bull. Med. and Chir. Fac. of Md.*, Jan., 1913.  
Abstracted in THE LARYNGOSCOPE, Nov., 1913, p. 1060.

**2217**

- Vertigo.** P. FRIEDRICH.  
Original contribution to THE LARYNGOSCOPE, Aug., 1913, p. 825.

**2218**

- Turning Test.** H. M. GODDARD, Trans. Phila. Laryngol. Soc., Feb. 18, 1913.  
Abstracted in THE LARYNGOSCOPE, Nov., 1913, p. 1114.

**2220**

- Otosclerosis and Its Relation to Tuberculosis.** G. GRADENIGO, *Monatschr. f. Ohrenh.*, Heft 7, 1913, p. 901.  
It is probable that hereditary syphilis, family tuberculosis, and arthritis, degenerative and trophic conditions are often grouped together under the name of otosclerosis. Though there are seldom tubercular symptoms in the otosclerotic patient yet, according to the author, careful interrogation will ascertain that some members of the family have died of it. There is a tubercular rheumatism of an acute, subacute and chronic form and to the latter of these the author attributes the relationship between otosclerosis and rheumatism.  
Ed.

**2221**

- Suggestions in Acoumetry.** G. GRADENIGO.  
Original contribution to THE LARYNGOSCOPE, July, 1913, p. 770.

**2222**

- Gradenigo's Syndrome. One Case-report and an Analysis of the Published Cases.** H. B. GRAHAM.  
Original contribution to THE LARYNGOSCOPE, Dec., 1913, p. 1146.

**2226****Brief Consideration of Certain Recent Views Regarding Otosclerosis.**

T. HARRIS.

Original contribution to THE LARYNGOSCOPE, Aug., 1913, p. 801.

**2227****Meniere's Symptom Complex.** H. HASTINGS, *Cal. State Jour. of Med.*,

Sept., 1913, p. 353.

Cases presenting Meniere's symptom-complex are the result of diseased conditions of the blood vessels supplying the labyrinth or of disease of the right nerve including its end-organs in the labyrinth. One case (apoplectic form) occurred during childbirth; another (apoplectic form) was due to atrophy of the cochlear nerve and did not result in permanent injury to the vestibular nerve; the third case was one of partial deafness with no vestibular changes; the fourth, a mild form, was probably a tobacco neuritis; the fifth was one of bilateral nerve-deafness with dizziness with partial restoration; the ninth, nerve-deafness, (apoplectic form) there was complete deafness; in the seventh, sudden deafness with dizziness and vomiting; the eighth was a case of sudden, complete nerve-deafness with partial restoration, the ninth, nerve-deafness, (apoplectic form) and ocular paralysis; the tenth, almost complete deafness with dizziness due to nervous prostration; the eleventh, (apoplectic form) with cochlear nerve atrophy; the twelfth, one of nerve-deafness associated with nervous prostration; and the last, one of atrophy of both cochlear nerves with history of hemorrhages and dizziness. The etiology and therapy is discussed.

Ed.

**2230****Differential Diagnosis and Treatment of Acute Labyrinthitis.** L. L. HENNINGER.

Original contribution to THE LARYNGOSCOPE, July, 1913, p. 781.

**2236****Sympathetic Nystagmus in Erysipelas.** HIRSCH, *Deut. med. Wchnschr.*, No. 7, 1913, p. 315.

With a functionally intact vestibule horizontal rotatory nystagmus is a usual concomitant of erysipelas. Therefore it is of diagnostic value especially in cases in which the erysipelas is localized to the scalp and in which meningeal irritation, vomiting, rigor, and delirium appear and which in the presence of middle-ear suppuration and undeveloped erysipelatous symptoms may point to intra-cranial complications.

Ed.

**2237****Changes in Ear Experimentally Produced by Sound.** H. HOESSLI, *Intern. Zntribl. f. Ohrenh.*, Bd. 11, Heft 8, 1913, p. 303.

The human labyrinth cannot be used in such experiments because of the delay in the autopsy and also because the labyrinth is so deeply situated that the fixation fluid cannot reach it. Therefore the experimentation has been limited to animals. Hoessli concludes that sounds by air and not by bone conduction produce labyrinthine changes and that persons exposed professionally to such noises cannot escape injury.

Ed.

**2240**

**Nystagmus Produced by Galvanism of Individual Semi-circular Canals.**

L. M. HUBBY.

Original contribution to THE LARYNGOSCOPE, Feb., 1913, p. 126.

**2243**

**Meniere's Symptom-complex.** S. J. KOPETZKY, *N. Y. Med. Jour.*, May 24, 1913.

The symptom-complex consists of a sudden attack of deafness, tinnitus and vertigo. This trio may also be caused by hysteria, by the various abdominal diseases, floating kidney, gall-stones, stones in kidneys and liver trouble. Ed.

**2254**

**Some Curable Affections of the Acoustic Nerve.** A. LEWY.

Original contribution to THE LARYNGOSCOPE, March, 1913, p. 190.

**2256**

**Acute Labyrinth Destruction with Complicating Erysipelas Following Mastoid Operation.** G. W. MACKENZIE, *Jour. of Ophthal., Otol. and Laryngol.*, Aug., 1913, p. 307.

The author gives a detailed case-history. The erysipelas was finally controlled by the use of phylacogen and the patient recovered from the severe infection of the middle-ear and mastoid but with a destroyed inner ear. Ed.

**2264**

**Physiologic Researches on the Hearing of Dogs.** OUSIEVITCH, *Comptes rendus de l'Acad. imperiale russe de Med. Mil.*, Nos. 3-4, 1913.

The ear of a dog is capable of distinguishing the beats of the metronometer, between that with 100 to 104 beats and that of 96 to 100. In two days' time, however, this power of differentiation is again lost. Ed.

**2267**

**Development of Membrana Tectoria.** C. W. PRENTISS, *Am. Jour. of Anat.*, May, 1913.

Extensive study on the fetus and new-born convinces the author that the membrane arises as a thin cuticular plate which is first developed over the free ends of the columnar cells forming the greater inner epithelial thickening of the basal cochlear wall. It is a delicate chambered cuticular structure, co-extensive with the spiral organ. The membrana being much thinner and narrower in the basal turns than in the apical region different portions of it probably respond to sounds of different pitch. In this sense it may act as a resonator. Ed.

**2269**

**Hallucinations of Hearing and Diseases of the Ear.** J. H. RHEIN, *N. Y. Med. Jour.*, June 14, 1913, p. 1236.

Three cases of hallucinations of hearing associated with disturbances in the peripheral auditory apparatus are recorded. The hallucinations were manifestations of mental disease. Two of the patients were 65 and

69 years old respectively, and therefore arterial changes in the brain were a factor. Undoubtedly this phenomenon is an expression of an stable psychic equilibrium. History of nervous disease in the ancestry is usually given. Ed.

### 2277

**Anatomy of the Static Labyrinth.** M. STROUSE, *Trans. Phila. Laryngol. Soc.*, Feb. 18, 1913.

Abstracted in *THE LARYNGOSCOPE*, Nov., 1913, p. 1112.

### 2290

**Nystagmus in Febrile Diseases.** E. VON CZYHLARZ, *Berl. klin. Wchnschr.*, Jan. 20, 1913.

In a large number of diseases starting suddenly with high fever the author simultaneously observed nystagmus—in erysipelas, croupous pneumonia, in severe cases of articular rheumatism and in influenza. In cases of typhoid the nystagmus appeared only after two weeks but remained after the fever disappeared. In cases of tuberculosis in which there was high fever, nystagmus was occasionally present though less frequently than in other febrile affections. The nystagmus is regarded as a toxic symptom in these cases. Ed.

### 2300

**Case of Total Deafness Following Dose of Quinin.** M. J. BALLIN, *N. Y. Med. Jour.*, May 24, 1913.

Abstracted in *THE LARYNGOSCOPE*, Sept., 1913, p. 912.

### 2301

**Restoration of Hearing After a Year's Deafness.** R. BARANY, *Wt. klin. Wchnschr.*, Jan. 23, 1913, and *Arch. intern. de Laryngol.*, March-April, 1913, p. 384.

Thirty-five cases of Barany's syndrome in which deafness, headache, vertigo and tinnitus suggested accumulation and retention of fluid in the cerebello-pontine angle have been studied. When the fluid is released either by lumbar puncture or by increasing the pressure through atropin, etc., the disturbances cease and the hearing becomes normal. Case reports are appended. Ed.

### 2303

**Montessori Models.** L. M. BATES, *Am. Ann. of Deaf*, Jan., 1913, p. 16.

This article is a review of Dr. Montessori's book "The Montessori Method." Conciseness and simplicity are the keynotes of the method. Ed.

### 2307

**Publicity for Education of Deaf.** L. M. BEMIS, *Volta Rev.*, April, 1913, p. 27.

The author reviews some of the articles on the education of the deaf which have appeared during recent years in magazines. Ed.

**2309**

**Histological Examination of Case of Congenital Deafness.** G. BRUEHL, *Passows Beitr.*, Bd. 7, Heft 1, 1913, p. 19.

Patient, 35 years old, was educated in a deaf-mute school until age of 10 when she had an attack of measles, retrogressed and became idiotic. Also paralysis of leg. Nerve specialist diagnosed the case as one of progressive degenerative affection of the cerebellum due to congenital "anlage." Autopsy findings: Pronounced hyperplasia of the pons and cerebellum with excessive development of the neuroglia. On the posterior surfaces of petrous portion of temporal bone semi-circular bony tubercles. Circular hyperostoses on posterior and anterior borders of the anterior superior surfaces of the pyramids. One small exostosis on inner surface of squama. Auditory canal, tympanic membrane and left tympanum normal; in right tympanum thickened and cystic mucosa. Vestibule, ossicles and semi-circular canals normal; almost symmetrical epithelial atrophy in cochlea and hypoplasia in spiral ganglion, in stria and in auditory nerves. No symptoms of inflammation or changes in membranous labyrinth. Changes in organ of Corti. Ed.

**2310**

**Talking Motion Pictures as an Aid to Lip-readers.** M. E. BRUHN, *Volta Rev.*, July, 1913, p. 179.

Though moving pictures are not made for the hard-of-hearing, yet they give excellent practice in acquiring proficiency in lip-reading and give the eye the proper training. Ed.

**2311**

**Teaching Lip-reading to the Adult Deaf as a Profession: Its Possibilities and Future.** M. E. BRUHN, *Volta Rev.*, March, 1913, p. 718.

Miss Bruhn points out the unlimited possibilities in this field and advocates the Mueller-Walle method. Ed.

**2314**

**Deafness Following the Use of Salvarsan.** C. A. CLAPP, *Jour. A. M. A.*, March 8, 1913, p. 742.

A month after the intravenous injection of salvarsan (0.6 gm.) the patient suffered a severe attack of giddiness, hearing reduced to watch at 4 inches in the right and to contact in the left ear; left side of face slightly flat; Barany caloric test negative on left, slight functioning on right. Potassium iodid increased giddiness which, however, improved after administration of pilocarpin epidermically and purgation. After several months of iodid therapy hearing improved to watch at 3 inches in each ear. Equilibrium still disturbed; slight facial paralysis has disappeared. Ed.

**2321**

**Training Muscles of the Ear in Treatment of Deafness.** FERNET, *Bull. de l'Acad. de Med.*, Oct. 14, 1913, p. 209.

Benefit by this treatment is due to improved circulation and better nourishment, better adaptation to the function progressively acquired by practice, and to the training of the auxiliary organs which sustain

and re-enforce the lagging organ. Children are often able to exercise their ear-muscles and adults undoubtedly have lost this faculty for want of exercise. In unilateral deafness the patient must be trained to listen with his deaf ear so that the little hearing-power left does not decrease but increase. Three sets of muscles are trained: those of face, those of scalp and auricle, and those of the Eustachian tube. Excellent results have been attained with this therapy.

Ed.

### 2330

#### Comparative Investigations of Acuity of Hearing in Blind and Seeing.

F. H. HOERTER, *Passions Beitr.*, Bd. 6, Heft 4-6, 1913, p. 302.

The blind do not possess a more acute sense of hearing, nor do they acquire one, but they have, however, a greater power of concentration. Even in the presence of tinnitus the blind, too, have the better sense of orientation.

Ed.

### 2345

#### Sporadic Congenital Deafness and Deafness from Syphilis. KERR LOVE, *Glasgow Med. Jour.*, Feb.-March, 1913.

This important paper took the form of a lecture delivered under the auspices of the National Bureau for the Welfare of the Deaf.

As is the case with other forms of deafness this type is met with mainly among the poorest classes. The author's enquiries show that the social status of the families from which the deaf children of Glasgow come is for the most part that of the house of one apartment. The one-apartment standard of living means not only insufficient air-supply, food, and clothing, but untreated syphilitic disease, uncontrolled use of alcohol, and carelessness in up-bringing of children. It results in an enormously high child death-rate, and in a deaf-mute rate which is never approached in the houses of the well-to-do.

The trees are given of 21 families in which syphilis was the cause of deafness in one or more members. In many of the families the Wassermann test was carried out in every living child and in some of them in the father and mother also. In the 21 families there were 172 pregnancies, 75 miscarriages and deaths, the latter nearly all in the first or second years, and 31 deaf or blind children. Of the remaining 66 some showed the Wassermann reaction, and might well become deaf later. The most common cause of death amongst these syphilitic children was meningitis.

In discussing the prevention of deafness of this type the author gives first place to notification of syphilis when it appears in children, and the immediate treatment of both mother and child. This might be done in connection with maternity benefit under the National Insurance Act, the commissioners insisting on a certificate of the cause of death in every case of still-birth or death shortly after birth.

The Wassermann reaction, applied in 157 cases, details of which are given, established (the author believes, for the first time) the fact that congenital deafness is sometimes due to syphilis. This was clearly the case more frequently than was proved by the reaction itself, for when no active process is going on the test sometimes gives a negative result



in undoubted cases of syphilis. In some cases of congenital deafness of syphilitic origin the active disease has probably come to an end before birth, and as the patients, in other respects healthy, have not been examined until many years later, it is not surprising that a considerable proportion show a negative reaction. The results as a whole indicate that syphilis is the causal factor in a considerable number of cases of sporadic congenital deafness, and justify the conclusion that the part which syphilis plays in the production of this condition may be much greater than can be detected by such a method as the Wassermann test carried out long after the disease has ceased to be active.

In sporadic congenital deafness there is another group of cases which, when the family is taken as a unit, exhibit a symptom-complex,—feeble-mindedness, epilepsy, and deafness: attending these families there is a cause-complex,—poverty, over-crowding, alcoholism, and untreated syphilis.

GUTHRIE.

### 2346

Early Home Treatment of the Deaf Child. G. HUDSON-MAKUEN.

Original contribution to THE LARYNGOSCOPE, Feb., 1913, p. 116.

### 2347

Prevention of Deafness. G. HUDSON-MAKUEN, *N. Y. Med. Jour.*, Aug. 16, 1913, p. 305.

For the prevention of deafness the eugenist, hygienist and legislator should co-operate. Marriage among families with a history of deaf-mutism should be forbidden; acquired deafness should receive the joint attention of the general practitioner and of the specialist; all school-children should be carefully examined; and attention called to the relation of syphilis to deafness in the descendants.

ED.

### 2348

Enhancing Auditory Acuity by Psychologic Methods. J. W. A. MALONEY, *N. Y. Med. Jour.*, May 24, 1913.

Every case of deafness should be carefully studied to ascertain if there are any tones still audible. If there are, a tone-chart should be made and the patient blind-folded while the audible tones are reiterated in his ear, at first loud and later with less intensity. Soon the ear will be educated and a serviceable degree of hearing re-established.

ED.

### 2352

Deafness Following Administration of Salvarsan. MENEAU, *Jour. de Med. de Bordeaux*, Dec. 21, 1913.

Apropos of his work in labyrinthitis following salvarsan, Meneau discusses deafness following the administration of "606" and reviews three illustrative cases found in the literature.

ED.

### 2363

End-results of Auditory Re-education. A. RAOULT, *Arch. intern. de Laryngol.*, July-Oct., 1913.

Histories of thirty-five cases are reviewed, seventeen from the author's own practice. Some of the patients thought there was no improvement

but on actual examination distinct improvement was noted. He states that in the majority of the cases in which the electro-phonoide of Zuend-Burguet is used improvement after cessation of treatment was permanent or even progressed. In the aged it is, however, often necessary to resume the treatments after a period of rest. Ed.

### 2369

**From the Abbe de l'Epee to Bezold.** H. SCHROEDER, *Ztschr. f. Ohrenh.*, Bd. 67, Heft 3-4, 1913.

While this article does not contain any original work, it is nevertheless of great value in as much as it enlightens the reader on the history and the present stand of the education of the deafmutes in Germany. GLOGAU.

### 2386

**Preventable Deafness.** W. M. TOMLINSON, *Med. Rec.*, Sept. 27, 1913.

The usual precautionary suggestions as to the care of the nasal, post-nasal and pharyngeal lesions is advised. The author's personal opinion is that 75 per cent of the adenoid cases have aural involvement. With recent improvements in the technic of Eustachian maneuvers, better results are hoped for. LEDERMAN.

### 2391

**The Deaf.** Editorial. J. D. WRIGHT.

Original contribution to THE LARYNGOSCOPE, Aug., 1913, p. 867.

### 2396

**Sounds in the Ear.** E. BOTELLA, *Semana Med.*, Feb. 20, 1913.

*Case 1:* In an anemic child of 6 years, the parents noticed a moaning sound in the mastoid region, synchronous with the pulse which disappeared on compression of the carotid artery. Cod-liver oil improved the anemia and the sound disappeared.

*Case 2:* Man of 32 complained of sounds in his ear during last three months which only ceased when the head was bent to that side. Others could hear these sounds; they seemed to be located in the internal carotid region. Ed.

### 2397

**Otorrhagia and Epilepsy.** C. CANESTRO, *Arch. intern. de Laryngol.*, May-June, 1913, p. 778.

Woman of 35 years. During epileptic attack subconjunctival hemorrhage and also slight hemorrhage from left ear. Examination revealed on posterior wall of external auditory canal traces of blood crusts and a small, dark-red hematoma. The hematoma opened when the speculum was inserted; it contained bloody fluid. Tympanic membrane and hearing normal; no sensory disturbance nor tinnitus. Right ear normal. During subsequent epileptic attacks no recurrence of hemorrhage. Hysteria and trauma excluded. Hemorrhage due to cramping of respiratory muscles during attack which produced venous stasis. Ed.

**2398**

**The Sarcophaga Nurus, a New Species of Fly the Cause of Myiosis of the Ear.** T. CERRUTI, *Rev. Med. del Rosario*, Sept., 1913.

During the summer the author observed eight cases of myiosis, five of which were in the nose and three in the ear. In four cases he ascertained that the myiosis was due to larva of the *comptosia macellaria*, but in one case he found the hitherto undescribed *sarcophaga nurus* to be the cause. In cases with otorrhea as a complication, living larva may be found by noting the irregular flow of the secretion in contra-distinction to the usual rhythmical flow.

ED.

**2400**

**Hemorrhage from the Ear.** F. CLEMENTS, *Passows Beitr.*, Bd. 6, Heft 2, 1913, p. 136.

The author presents an exhaustive article on hemorrhage from the ear in which he records as completely as the bibliographical facilities permit, the data of all of this unusual type of hemorrhage.

He concludes the article with a detailed clinical report of the case of a boy, seven years old, in whom a profuse aural hemorrhage was suddenly developed; this hemorrhage extended over a period of about six weeks, with ultimate recovery. While the source of hemorrhage cannot be absolutely fixed the author thinks it probable that same was located in the superior end of the jugular vein, perhaps even from the bulb and that this erosion of the venous wall was perhaps induced by an adenitis of tubercular character. The history of the case developed the fact that the grandfather (maternal) had died of tuberculosis and that the mother was also tubercular.

GOLDSTEIN.

**2416**

**Gun-shot Wound in Ear.** K. KIRCHNER, *Monatschr. f. Ohrenh.*, Heft 1, 1913, p. 7.

Abstracted in *THE LARYNGOSCOPE*, Dec., 1913, p. 1177.

**2417**

**Ear-findings in Rachitis and Their Significance.** L. KOMENDANTOW, *Rev. mens. des Mal. de l'Oreille*, Jan., 1913.

From experience the author concludes that rachitis has a very untoward effect on the hearing function and is similar to otosclerosis.

ED.

**2420**

**Otitis and Eclampsia.** O. KUTVIRT, *Casopis lekarno ceskych*, No. 21, 1913, p. 27.

Kutvirt reports on an observation of eleven cases in infants, in each of whom middle-ear suppuration was present. The attacks of eclampsia usually ceased after the onset of the suppuration. After the first three fatalities the author carefully examined the ears in every case of eclampsia and performed paracentesis. Four of the eight remaining cases recovered. After the paracentesis the attacks of eclampsia ceased. The author feels that otitis is an important etiological factor in eclampsia.

ED.

**2425**

**Scarlet Fever and the Ear.** P. MANASSE, *Monatschr. f. Kinderh.*, July, 1913, p. 59.

Manasse points out the frequency of ear complication in scarlet fever and the two types of scarlatinal otitis: 1. Ordinary mild inflammation which occurs where there is little or no throat trouble. 2. Scarlatino-diphtheritic or necrotic otitis due to the same specific cause as the scarlet fever. It is very severe, often causing extensive necrosis of the soft parts and bones and almost always resulting in defective hearing or in total deafness. In the later case the throat should receive very careful attention to prevent infection spreading from throat to ear. Manasse discourses on the care of the ear in otitis. Operative treatment should only be undertaken when absolutely necessary. Ed.

**2428**

**Morphology of Ear and Theory of Hearing.** M. MEYER, *Arch. f. gesam. Physiol.*, Bd. 153, Heft 5-7, 1913, p. 369.

Meyer analyzes again his theory of hearing which is contrary to that of Helmholtz. He also refutes, by twenty-two illustrations, Brocci's contention that his theory does not take into consideration the morphological peculiarities of the sound receiving organ. Ed.

**2441**

**Case of Atrophy of Ear, Complicated by Malformation of Cranium and Atrophy of Facial Nerve.** N. SACK, *Monatschr. f. Ohrenh.*, Heft 7, 1913, p. 908.

Case of congenital malformation of external auricle in which the middle-ear was most likely also malformed, but in which the labyrinth was normal. There were also defects in cranium and vertebral column, with paralysis of facial nerve probably due to peripheral causes. Ed.

**2448**

**Significance of Ear-ache.** IRVING SOBOKY, *Boston Med. and Surg. Jour.*, Feb. 26, 1913, p. 317.

A plea to the practitioner to attach more significance to the various forms of otalgia coming under his observation. BERRY (MOSHER).

**2450**

**Otology from Medical Point of View.** H. N. SPENCER, *N. Y. Med. Jour.*, March 1, 1913.

In a short paper Spencer emphasizes the necessity for the otologist to make frequent examination of the urine and of the blood. He holds that too little consideration is given to internal medicine in diseases of the nose and ear. Ed.

**2460**

**Influence of Sounds of Different Pitch, Duration and Intensity in the Production of Auditory Fatigue.** W. A. WELLS.

Original contribution to *THE LARYNGOSCOPE*, Oct., 1913, p. 989.

**2461**

**Measurement of Auditory Acuity.** W. A. WELLS, *Jour. A. M. A.*, Sept. 27, 1913, p. 1239.

Wells points out the difficulties and lack of accurate methods of testing the hearing, qualitative and quantitative and shows the deficiencies in the various methods in vogue. There is great need of an exact system and an instrument capable of producing all the notes of the scale from the highest to the lowest, in pure tones free from harmonics and capable of giving these notes in intensities readily measurable and varying from a point below the threshold of excitation of the most sensitive hearing up to a degree necessary to awake sensation in persons suffering from the most profound deafness. Moreover, in order that such an apparatus may deserve universal acceptance, it must be possible to construct as many others as are wanted of the same type, each constant for itself and precisely similar to the others. It is only then that we can hope to make it available for a uniform notation comparable among different observers.

Ed.

**2467**

**Scarlet-red in Otology.** ALLAN, *Therap. Mag.*, Jan., 1913.

The author has had very good results with scarlet-red in incipient retro-auricular affections subsequent to acute mastoiditis. The salve, placed on the edges of the wound, stimulates the growth of the epidermis and the period of time necessary for the cutaneous reunion is greatly curtailed.

Ed.

**2473**

**Suction Hyperemia in Otology.** D. E. BOTELLA, *Sem. med.*, March 27, 1913; and *Bol. de Laryngol.*, April-June, 1913.

The best results were obtained in simple, acute otitis media or with mastoid symptoms, and in simple chronic otitis. If there be bony lesions, even with fungus growth, aspiration ought to give amelioration or relief. The treatments last from ten to twelve minutes. If there is any bleeding the treatment should be stopped.

Ed.

**2477**

**Plastic for Closing Retro-auricular Opening.** CITELLI, *Arch. intern. de Laryngol.*, May-June, 1913, p. 808.

Citelli describes in detail his new procedure by which he successfully closed retro-auricular opening in two cases.

Ed.

**2483**

**Technic of the Labyrinth Operation** E. B. DENCH.

Original contribution to *THE LARYNGOSCOPE*, Aug., 1913, p. 814.

**2484**

**Decompression for the Relief of Disturbances of the Auditory Apparatus of Intra-cranial Origin.** W. P. EAGLETON.

Original contribution to *THE LARYNGOSCOPE*, May, 1913, p. 592.

**2487****Intra-Cranial Division of the Auditory Nerve for Persistent Tinnitus.**C. H. FRAZIER, *Jour. A. M. A.*, Aug. 2, 1913, p. 327.

Intra-cranial division of the auditory nerve is indicated when the obstinate vertigo is associated with tinnitus, for the relief of certain forms of persistent otalgia, and for severe, persistent, intractable tinnitus. A case of the last-mentioned condition, successfully operated, is reported in detail.

Ed.

**2490****Diathermia in Treatment of Deafness from Middle-ear Disease.** HAMM,*Deut. med. Wchnschr.*, July 10, 1913.Abstracted in *THE LARYNGOSCOPE*, Oct., 1913, p. 1017.**2493****Medicinal Combination Very Efficacious in Treatment of Chronic Suppurative Otitis Media.** H. JOLIAT, *Rev. de Laryngol.*, June 14, 1913,

p. 710.

The following solution is recommended: Acid boric; bismuth subnit. ana 4.0; acid benzoic 0.5; formalin gtt. 3; glycerin q. s. ad 30.0. After the ear has been thoroughly cleansed and dried this solution is dropped in and left in the ear for ten minutes.

Ed.

**2502****Otorrhea of Twenty Years' Duration Cured by Surgical Intervention and Use of Wright Vaccine.** J. LABOURE, *Rev. hebdom. de Laryngol.*, March

29, 1913, p. 369.

Abstracted in *THE LARYNGOSCOPE*, Aug., 1913, p. 848.**2505****Salvarsan in Otiatrics.** J. LANG, *Deut. med. Wchnschr.*, No. 9, 1913.Abstracted in *THE LARYNGOSCOPE*, Nov., 1913, p. 1052.**2509****Inadequacy of the Drainage Sometimes Obtained by the Ordinary Myringotomy in Acute Otitis Media and a Method of Overcoming the Difficulty.** R. LEWIS.Original contribution to *THE LARYNGOSCOPE*, Feb., 1913, p. 121.**2515****Implantation of Cartilage for Prevention and Correction of Deformity of the Auricle.** H. P. MOSHER, *Trans. Am. O. Soc.*, 1913, p. 240.

Case of chondritis of auricle following operative procedure. Two-thirds of the auricular cartilage had disappeared. The author, in several stages, transplanted cartilage obtained from the nose of this and other patients and obtained satisfactory results. He feels that this technic deserves extensive trial.

Ed.

**2516****Suggestions on Phenol and Ichthyol in External Otitis.** J. H. NELSON, *Jour. A. M. A.*, March 8, 1913.Abstracted in *THE LARYNGOSCOPE*, July, 1913, p. 780.



**2517**

**Roentgen Therapy in Otosclerosis.** H. ORTLOFF, *Arch f. Ohrenh.*, Bd. 90, Heft 4, 1913, p. 233.

Abstracted in *THE LARYNGOSCOPE*, Oct., 1913, p. 998.

**2518**

**Treatment of Cauliflower Ear.** D. H. PALMER, *N. W. Med.*, Dec., 1913.

After preparing the skin of both sides of the ear and the immediate vicinity of the face and scalp after any of the approved surgical methods except iodine, the author makes an incision over the prominent point of the swelling through the skin and perichondrium into the hemorrhagic cavity, after plugging the external auditory canal with cotton. All clots, new-formed bone or cartilage are then removed with a fine gouge or curette, gently scraping the anterior surface of the old cartilage until it is smooth.

The incision is now closed except for a small opening which will just admit a Eustachian catheter connected up with a small Pynchon pump. This rapidly removes all accumulated blood and the suction approximates the perichondrium skin and cartilage. The skin surface is now thoroughly dried and a new plug of cotton placed in the external auditory canal. Sterile vaseline is applied to both surfaces of the ear and for an inch anterior and posterior to the ear on the skull.

About one-half tumbler of plaster of Paris cream is poured into a cardboard mould surrounding the ear. The ear is now completely encased in the plaster with the Eustachian catheter inside and the pump working continuously.

As the plaster begins to harden a slight rotary motion is kept up with the catheter to permit its easy removal through the cast. The track of the catheter is the drain to the opening in the ear and allows any fluid that may collect to escape. A small piece of gauze over the cast and a light retaining-bandage or adhesive tape will support the cast and prevent motion. The cast may be removed in ten days. The ear will be found perfectly normal and there will not be any recurrences. Ed.

**2519**

**Management of Acute and Chronic Suppuration of the Middle Ear.** J. J. PATTEE, *Colo. Med.*, Feb., 1913.

In this article Pattee gives the general practitioner a few suggestions to aid him in the recognition of otitis and also discusses prognosis and treatment. Ed.

**2520**

**Treatment of Persistent Otorrhea in Infants and Young Children by the Establishment of Post-auricular Drainage.** W. C. PHILLIPS.  
Original contribution to *THE LARYNGOSCOPE*, July, 1913, p. 778.

**2525**

**Otosclerol in the Treatment of Tinnitus.** SENATOR, *Med. Klinik*, No. 47, 1913, p. 1936.

In case of subjective tinnitus the author has obtained good results by using otosclerol. Of course this therapy may have to be used in conjunction with other measures. Otosclerol must be taken about five to

six weeks and may have to be resumed after an interval of rest. Usually one tablet three or even five times a day is indicated. Ed.

### 2526

#### Relief of Ear-ache and Induction of Operative Anesthesia by Infiltration of the Auriculo-temporal and Tympanic (Jacobson's) Nerve.

P. G. SKILLERN, *Boston Med. and Surg. Jour.*, Oct. 2, 1913, p. 503.

Skillern recommends the infiltration method for local anesthesia of the external auditory canal and the membrana tympani, which are supplied very large by fibers from Jacobson's nerve. He found that this nerve could be easily and effectively reached by a needle passed immediately behind the auriculo-temporal nerve, at the level of the tragus. The opening of the jaw facilitates the injection. A case in point is cited where the patient was suffering intense pain from a furuncle of the canal. The infiltration of Jacobson's nerve was done, resulting, not only in a cessation of pain, and an operative anesthesia, but the relief from the pain continued. Skillern advises the use of a 2 per cent novocain solution with 1-3000 adrenalin. If relief from pain alone is desired quinin-urea hydrochlorid is recommended because its effects last for many hours. Alcoholic injections are more suited for intractable pains.

For anesthesia of the membrana-tympani he suggests puncturing the drum with a needle and filling the middle ear with the novocain-adrenalin, thus reaching the mucous membrane surface of the drum.

BERRY (MOSHER).

### 2532

#### Use of Gauze Packing in the Ear Canal. M. D. STEVENSON.

Original contribution to *THE LARYNGOSCOPE*, Oct., 1913, p. 1008.

### 2538

#### Treatment of Chronic Deafness by High Potential Electric Currents. D.

H. YATES, *Jour. Adv. Ther.*, May, 1913, p. 185.

The author reports wonderful results; 50 per cent cures in cases where the ossicles have not become ankylosed and the patient is not totally deaf. The treatments are given for several weeks, and last from 20 to 30 minutes. Ed.

### 2541

#### Typhoid Bacilli in Pus From Mastoid Process. O. ALBERTI, *Ztschr. f.*

*Ohrenh.*, Bd. 69, Heft 1, 1913, p. 64.

Child of 2 years; nausea and high fever; four days later broncho-pneumonia; in next few days pronounced inflammation in tympanic cavity. No joint stiffness. Body and extremities covered with brown, exanthematous spots. Bilateral opening showed the mastoids filled with pus. Exitus on following day because of cardiac insufficiency. Pneumococci and typhoid bacilli present in pus. Ed.

### 2545

#### Serous Cyst of the Mastoid Process. BREYRE, *Ann. de la Soc. Med.-Chir. de la Liege*, Jan., 1913.

This cyst developed without pain in the ear, the only symptom being a facial paralysis. The patient had hitherto been entirely healthy. The cyst was successfully operated but recurred. Ed.

**2546**

**Infant Temporal Bone and Its Relation to Mastoid Operation.** H. B. BROWN, *Bull. Lying-in Hosp.*, March, 1913, p. 11.

In infants the author places the incision not nearer than a quarter of an inch from the auricular attachment to avoid injuring the facial nerve which lies on the very surface of the bone behind the lower half of the posterior canal wall. If the periosteum is not elevated with great care the middle fossa may be penetrated and the brain injured. Unless the operator be well acquainted with the infant mastoid, the curette should be used to remove outer bony covering. When the mastoid structure is removed the operator must be careful not to injure the posterior semi-circular canal which is situated just behind the horizontal canal. The technic detailed is based on Freligh's anatomical studies. Ed.

**2566**

**Prognosis of Operative Mastoiditis.** H. HAYS, *Arch. of Diag.*, Jan., 1913.

Hays reviews the 1912 reports of the New York Eye and Ear Infirmary as to mastoiditis and concludes that the prognosis should always be guarded. Recurrence or facial paralysis may set in years after the operation. Ed.

**2581**

**Glio-sarcoma of the Left Lobe of the Cerebellum Giving External Symptoms of a Mastoiditis.** Report of a Case. J. F. McCaw.

Original contribution to THE LARYNGOSCOPE, Oct., 1913, p. 1004.

**2532**

**Latent Mastoiditis.** O. A. M. McKIMMIE, *Trans. Phila. Laryngol. Soc.*, Dec. 16, 1913.

Abstracted in THE LARYNGOSCOPE, March, 1914, p. 236.

**2595**

**History of the Mastoid Operation.** E. SCHMIEGELOW, *Ztschr. f. Ohrenh.*, Bd. 68, Heft 1, 1913.

Some 120 odd years ago there died in the capital of Denmark, the king's physician in ordinary, the celebrated Privy Councillor Johann Just von Berger. This privy councillor is famous not by his deeds, but by his death. Deafness, ear noises and dizziness induced the ambitious septuagenarian to have a mastoid operation performed on his right ear. The celebrated patient was permanently cured from all his troubles; for the operation was very successful and the patient died soon after. For many decades Koelpin, the daring operator, was called a murderer. By the above-mentioned awakening of the dead one, Prof. Schmiegelow tries to exonerate the embryo otologist of the days of yore. The privy councillor's skull was found last year in a graveyard beneath a church in Copenhagen. This "human document" should warn those who undertake operations in co-operation with the undertaker that whatever they have chiselled into the bone will be deciphered by posterity, when the dead ones awake. Although the "corpus delicti" is missing, for the operated right mastoid process had been removed at the post-mortem, the privy council-

lor's skull exposes the surgeon's technic, as the latter had to demonstrate before a body of sneering fellow physicians his *modus operandi* on the other mastoid process. At the tip of the left mastoid process a round trepanation opening is visible which leads into a conical canal to a distance of about 1 cm. from the surface of the bone. The mastoid cells are superficially opened, while the antrum, lamina vitrea, and sulcus sinus transversi are not encroached upon. Prof Schmiegelow therefore believes that the surgeon committed no technical error, as the drill was not applied too high nor too deep and could therefore not have injured the interior of the skull. The post-operative history of the patient, however, as reported by Koelpin immediately after the privy councillor's death, shows, when described in modern terms, otogenous septico-pyemia, septic thrombus within the sinus transversus and cavernous and purulent leptomeningitis.

GLOGAU.

## 2602

### Case of Mastoiditis with Peri-sinus Abscess and Paralysis of One Leg.

D. J. G. WISHART, *Can. Med. Assn. Jour.*, Nov., 1913, p. 972.

In this case the fatality would have been prevented had the mastoid been opened earlier. The history of the brain abscess is unique in that there was no vomiting, fever, nor chill until fourth day.

Ed.

## 2604

**Streptococcus Mucosus.** W. ZEMANN, *Arch. f. Ohrenh.*, Bd. 92, Heft 1-2, 1913, p. 74.

Zemann arrives at the following conclusions: 1. Mucosus suppurations are relatively frequent. 2. The course of mucosus otitis is typical in about 50 per cent of the cases. 3. Mucosus suppuration often leads to mastoid and endo-cranial complications. 4. More than half the cases of endo-cranial complications were perisinuous abscesses. 5. The mastoid otitis does not often perforate the cortex externally but rather toward the brain cavity. 6. In regard to therapy further exact observation of the prodrominal manifestations of the disease is necessary. 7. The mastoid pus should be examined bacteriologically. 8. Every rise in temperature after operation, not otherwise accounted for, indicates another pus focus and further operation. Therefore primary stitching of the retro-auricular wound is contra-indicated. 9. The average healing time is 62 days. 10. If all the pus foci are properly eliminated the prognosis is favorable.

Ed.

## 2607

**Thrombosis of Otitic Origin.** C. CALDERA and G. FINZI, *Arch. ital. di Otol.*, Nos. 5-6, 1913.

The authors discuss the topography of the lateral sinus and the conditions which may lead to an infection; they discuss the symptomatology of thrombo-phlebitis and report nine cases, with 5 recoveries and 4 deaths. Diagnosis and therapy are discussed and the following conclusions drawn from experiments on dogs: Collargol is an effective therapy; tying and resecting the jugular interrupt the spread of the infection; opening and removing the thrombus is effective.

Ed.

### 2614

**Sinus Thrombosis Following Necrosis of Periosteal Flap.** OTTO GLOGAU, *Ann. of Otol.*, June, 1913.

Glogau reports a case of apparently uncomplicated acute mastoiditis in which a periosteal flap was formed according to Leland's method. Sinus thrombosis, doubtless due to necrosis of the periosteal flap, resulted.

Ed.

### 2619

**Case of Cavernous Sinus Thrombosis of Otitic Origin With Recovery.** H. R. JOHNSON.

Original contribution to *THE LARYNGOSCOPE*, Feb., 1913, p. 124.

### 2636

**Case of Cerebellar Abscess of Otitic Origin Successfully Operated.** U. CALAMIDA, *Arch. ital. di. Otol.*, July, 1913, p. 281.

### 2641

**Facial Paralysis in Fractures of the Petrous Portion of the Temporal Bone.** H. DE STELLA, *Arch. intern. de Laryngol.*, May-June, 1913, p. 696.

Apropos of the three cases reported the author discusses the two forms of paralysis: 1. This takes place simultaneous with the trauma and involves the wall of the Fallopiian canal; the nerve is either directly injured or compressed because of the extravasation of blood. If the nerve has not been entirely severed these cases recover in six to twelve weeks. 2. This is the more usual form and develops two to four days after the trauma. It is due to a secondary compression of the nerve caused by the surrounding inflammatory exudate which almost always develops in such fracture even if the Fallopiian canal is not dilated. This form of paralysis is not of long duration.

Ed.

### 2646

**Perforation of the Petrous Portion of Temporal Bone.** B. GRAHAM, *Ann. of Otol.*, Sept., 1913, p. 798.

The author reports the histories of two cases with autopsy findings to demonstrate the insidious and burrowing power of the capsulated bacteria. The article is illustrated.

Ed.

### 2651

**Extra-dural Abscess Complicating Frontal Sinusitis.** R. H. JOHNSTON.

Original contribution to *THE LARYNGOSCOPE*, March, 1913, p. 206.

### 2658

**Sub-periosteal Temporal Abscess of Otic Origin Without Intra-ossseous Suppuration.** HENRI LUC.

Original contribution to *THE LARYNGOSCOPE*, Oct., 1913, p. 999.

**2678****Indications for and Results of Operative Treatment of Otitic Meningitis.**

E. W. DAY, *Surg. Gynecol. and Obstetr.*, April, 1913, p. 369.

The author has treated 57 cases of meningitis: 53 of otitic origin, 2 nasal, and 2 secondary to pneumonia. All were diagnosed as diffuse suppurative meningitis, and 38 confirmed by autopsy. Four cases recovered, 3 operative and one with vaccine therapy. Meningitis followed chronic purulent otitis and its acute exacerbation twice as frequently as the acute form. The complicating acute type was more often the explosive form, running a rapidly fatal course. Meningitis following the chronic type had a more protracted course.

The treatment was: (1) injection of drugs into spinal canal, (2) vaccines and sera; or (3) operative. The first is unsatisfactory, for drugs strong enough to overcome the infection are harmful to other organs; the vaccines and sera were also unsatisfactory. Dural drainage and drainage of cisterna magna is only partially effective. Surgery has not reduced the mortality and a successful treatment is still to be discovered. Early diagnosis is essential.

Ed.

**2680****Report of Three Cases of Otitic Meningitis Treated by Drainage of the Cisterna Magna.** EDWARD B. DENCH.

Original contribution to *THE LARYNGOSCOPE*, Sept., 1913, p. 944.

**2700****Diagnosis of Rupture Into the Lateral Ventricle and of Acute Internal Meningitis.** E. RUTTIN.

Original contribution to *THE LARYNGOSCOPE*, Aug., 1913, p. 819.

**2706****Some Conditions Associated with Loss of Cerebro-spinal Fluid.** R. B. CANFIELD; *Ann. of Otol.*, Sept., 1913, p. 604.

Eleven cases are reported. The author gives the following resume: In cases 1, 2 and 3, labyrinth involvement occurred during a chronic otitis media. In Case 1 the labyrinth was not opened at the time of operation, although failure to find the stapes after operation, together with the daily loss of cerebro-spinal fluid are sufficient evidence that it had been opened. In Cases 2 and 3 the labyrinth was exenterated. Here the suppurative cavity was brought into communication with the subdural space without setting up a meningitis. Case 3 demonstrates the condition of meningismus into which the patient may lapse as a result of excessive loss of cerebro-spinal fluid; a heteroplastic dural graft was successfully made for the relief of the condition. In Case 4 the avenue of infection of the meninges and that of the escape of the cerebro-spinal fluid through the pneumatic structures of the apex of the temporal bone could be made out. In Cases 5, 7 and 8 free communication between the subdural space and the suppurating cavity did not cause meningitis. In Cases 6 and 10 sudden decrease in cerebral pressure caused rupture of the lateral ventricles into the abscess cavity without infecting the ventricle. Case 9 shows that hemiplegia may result from loss of the cerebro-



spinal fluid and that by stopping the escape the function may be restored. Case 11 illustrates that the sub-dural space or base of the brain may remain in free communication for an indefinite period with the nasopharynx without establishing a meningitis. Ed.

### 2707

**Easy Method of Demonstrating Cells in Cerebro-spinal Fluid.** SCHLUETTENER, *Neurol. Zntzbl.*, No. 7, 1913, p. 420.

The fault with the other methods of examining the spinal fluid is the length of time required. The author recommends a rapid method and one in which clear, sharp cell-pictures are obtained. Ed.

### 2708

**Tibial Bone Transplantation in Post-operative Mastoid Wounds.**

M. J. BALLIN, *Med. Rec.*, March 1, 1913, p. 372.

Ballin successfully used tibial bone transplantation in three cases. The piece is cut to fit the cavity. The transplanted bone acts as a bridge and on it the skin of the mastoid cavity rests. The cavity under the bridge of bone fills with blood which becomes organized and is eventually replaced by new bone from the transplant; thus after a time the cavity becomes obliterated. Ballin describes his technic in detail and cautions against possible complications. He does not advocate this method as a routine procedure but feels that it is of value in cases where there is a clean granulating wound. Ed.

### 2710

**Use of Vaccine After the Mastoid Operation.** W. C. BRAISLIN, *Trans. Am. O. Soc.*, 1913, p. 234.

Braislin employed vaccines in six of his thirty-five mastoid operations during the winter with excellent results. He feels that it is indicated in cases presenting the following complications: 1. Extensive infiltration of glands of neck following operation for streptococcic mastoiditis and cervical abscess. 2. Indeterminate or obscure causes of elevated temperature (lateral sinus excluded from involvement). 3. Delay in granulation and healing process. 4. Pain in limbs, joints and back, without special temperature elevation, after operation for streptococcic mastoiditis. 5. In cases of post-operative pneumonia. 6. In cases of infection of labyrinth. Ed.

### 2715

**Obliteration of the Mastoid Excavation by the Implantation of a Tissue-flap Taken from the Temporal Bone.** S. IGLAUER.

Original contribution to *THE LARYNGOSCOPE*, May, 1913, p. 585.

### 2722

**Treatment of Fracture of Petrous Bone.** H. and A. NIMIER, *Presse Med.*, July 26, 1913.

In most cases of skull fracture involving the petrous portion of temporal bone the tympanic cavity is in an aseptic state. Therefore operative measures or attempts at disinfection of the auditory passages in cases with hemorrhage from ear are not indicated. In cases of petrous

fracture where a chronic otitis media exists or develops no routine procedure can be prescribed. Every such case demands prompt and individual therapy. Ed.

### 2727

**The Myringoscope.** G. G. CARROLL, *Jour. A. M. A.*, Dec. 6, 1913, p. 2065.

The instrument consists of a cylinder, one end of which is closed, and at the other is fitted any one of three sizes of specula depending on the caliber of the external canal of the ear to be examined. On one side of the cylinder there is a round window with a magnifying lens while inside and opposite the round window is a plain mirror at approximately an angle of 45 degrees. Inside the cylinder is attached a tungsten lamp lighted by a 2½-volt dry battery, or it can be lighted by any other rheostat or controller desired. There is also attached to the cylinder an auscultation tube. The method of using the instrument is described. So far as Carroll knows it is new for the study of the patency of the Eustachian tube, inflation of the tympanum and the study of its excursion from inside air-pressure, as compared with the Siegel otoscope findings from without.

### 2728

**The Monochord.** MAX A. GOLDSTEIN.

Original contribution to THE LARYNGOSCOPE, March, 1913, p. 216.

### 2729

**Practical Antiphone.** HALLE, *Deut. Med. Wchnschr.*, No. 1, 1913.

A pledget of cotton wadding re-enforced with a silk thread is dipped into hot paraffin (melting point, 52°-57°). The antiphone can be disinfected in sublimate and will be found to be very serviceable. Ed.

### 2731

**Improved Audiometer.** H. HAYS.

Original contribution to THE LARYNGOSCOPE, Aug., 1913, p. 864.

### 2733

**Illuminated Ear Speculum.** F. A. KIEHLE, *Jour. A. M. A.*, Aug. 16, 1913, p. 491.

Kiehle presents a speculum with attached battery for illuminating the ears of patients who are confined to bed. Ed.

### 2734

**The Aurometer.** M. LUBMAN, *N. Y. Med. Jour.*, Nov. 22, 1913, p. 1016.

By means of this instrument the exact hearing distance may be determined as well as the progress made in the treatment of various conditions of deafness. The aurometer consists of a circular head-band adjustable by a thumbscrew to fit any size of head. At the sides of this head-band opposite the ears are extended two angular bars graduated in one-half inches. On each bar is a sliding upright piece controlled by a thumb-screw and with a small hook at the top to suspend a watch; the watch will be in the exact line of the external canal. The head-band has two eye-shields to obstruct the patient's vision. The watch should hang

on a string from the hook as this will prevent the transmission of vibrations from the watch.  
Ed.

**2735**

**Tuning-fork Harmonium and Its Application in Voice-formation and Treatment.** E. N. MALJUTIN, *Arch. f. Laryngol.*, Bd. 27, Heft 3, 1913, p. 477.

The author has constructed his system by attaching three tuning-forks each of which can be sounded separately. A phonendoscope is also attached.  
Ed.

**2738**

**Resonators With Special Reference to the Schaefer Apparatus.** R. SONNENSCHNEIN.

Original contribution to THE LARYNGOSCOPE, May, 1913, p. 602.

**2739**

**Curette for Bridge in Radical Mastoid.** M. D. STEVENSON.

Original contribution to THE LARYNGOSCOPE, March, 1913, p. 225.

**2748**

**Needle-holder for Submucous Resection of the Septum.** H. B. HITZ, *Jour. A. M. A.*, April 26, 1913, p. 1295.

With this instrument a small curved needle can be securely grasped so that a suture may be passed in any direction, leaving a clear view of the operating field and enabling one to do suturing in any direction with the least possible traumatism to the frequently thin, fragile, mucoperichondrial flap.  
Ed.

**2750**

**Instrument for Posterior Rhinoscopy.** W. LLOYD, *Lancet*, No. 13, 1913, p. 4711.

This instrument consists of a tube with a movable mirror at the end. The spatula may be fitted in a Bruening's apparatus. The soft palate is pushed out of the field of vision by means of an India rubber cord inserted through the nose.  
Ed.

**2753**

**Needle for Intra-nasal Suturing.** C. N. SPRATT.

Original contribution to THE LARYNGOSCOPE, Dec., 1913, p. 1150.

**2761**

**Corwin's Tonsil Hemostat.** A. M. CORWIN.

Original contribution to THE LARYNGOSCOPE, March, 1913, p. 226.

**2762**

**Sharp Tonsil Dissector with Double Pillar Retractor. Modified Jansen Middleton Nasal Septum Punch.** S. GOLDSTEIN.

Original contribution to THE LARYNGOSCOPE, Dec., 1913, p. 1151.

**2763**

**New Tonsil-snare.** L. D. AND A. S. GREEN, *Jour. A. M. A.*, June 28, 1913, p. 2043.

The authors point out the disadvantages of other snares and claim for their own: (1) Rapid and slow snaring can be done at will. (2)

Canula remains stationary preventing injury to posterior pillar and partial removal because of slipping of wire loop. (3) Because of ratchet one can always stop to ascertain whether pillar and uvula are free. (4) If the loop be too large and the tonsil not quite snared off it can easily be disengaged by loosening thumb-screw and pulling out the stylet.

Ed.

**2764**

**Electric Light-bath for the Throat.** HAENLEIN, *Med. Klinik*, No. 10, 1913.

This apparatus is of service in pharyngeal affections in which light-baths are therapeutically indicated. It is covered with waxed felt which is washable and retains the heat. Asbestos prevents burning. The degree of warmth can be regulated.

Ed.

**2775**

**Mouth-gag With a permanently Attached Tube for Continuous Etherization, and a New Tonsil Grasp.** W. C. WOOD.

Original contribution to *THE LARYNGOSCOPE*, March, 1913, p. 222.

**2776**

**New Antrum Knife.** O. A. LOTHROP, *Boston Med. and Surg. Jour.*, Sept. 15, 1913, p. 471.

With Lothrop's new knife a large opening into the antrum can easily be made intra-nasally. The knife consists of a stout handle and shaft and a thick, short, chisel-like blade which is set at right angles to the shaft. The shaft is curved outward slightly; the cutting edge is so adjusted that when traction is made in the direction of the shaft the knife cuts downward like a carpenter's draw knife. There is a knife for the right and left side; they can be used to cut upward or downward. Lothrop also describes his technic.

Ed.

**2779**

**New Instruments.** J. J. SULLIVAN.

Original contribution to *THE LARYNGOSCOPE*, Feb., 1913, p. 132.

**2782**

**The Hentschel Apparatus for Inhalation Therapy.** CITELLI, *Bol. delle Mal. dell'Orecchio*, July, 1910, p. 149.

Citelli describes this instrument with which he has had much success and also indicates the medication employed in it.

Ed.

**2785**

**Convex Laryngeal Mirror.** GEIGEL, *Muench. Med. Wehnschr.*, No. 48, 1913, p. 2679.

Geigel recommends this mirror especially for the first examination because of its large visual field. It is also of very decided advantage in posterior rhinoscopy.

Ed.

**2789**

**Direct Laryngoscopes.** C. JACKSON.

Original contribution to *THE LARYNGOSCOPE*, June, 1913, p. 708

**2790**

**Endoscopic Syringe.** CHEVALIER JACKSON.

Original contribution to *THE LARYNGOSCOPE*, Aug., 1913, p. 863.

**2794**

**New Principle in Esophagoscopy.** R. LEWISOHN, *N. Y. Med. Jour.*, Oct. 4, 1913, p. 648.

The new esophagoscope is based on the principle of a rectangular telescope. It can be introduced in a normal position of the head and passes in the longitudinal axis of the esophagus and not at an angle to this axis. The light-attachment is at the proximal end of the horizontal tube and the mirror at the junction of the horizontal and vertical parts. With a specially constructed forceps specimens for microscopic diagnosis and foreign bodies may be removed.

Ed.

**2795**

**Laryngo-fissure.** MARSCHIK, *Wr. klin. Wchnschr.*, No. 11, 1913.

In a patient with cicatricial stenosis of the larynx after laryngo-fissure was performed the Clari-Marschik apparatus was used with the result that the patient can now speak with a laryngeal voice.

Ed.

**2796**

**Lerche's Instrumentation for Internal Esophagotomy.** MARSCHIK. *Wr. klin. Wchnschr.*, No. 11, 1913.

This instrumentation has thus far been used in a dozen cases at Chlari's clinic with very satisfactory results. The after-treatment consists of the usual progressive dilatations or of treatment with some other instruments presented.

Ed.

**2797**

**Simple Devices for Effective Artificial Respiration in Emergencies.** S. J. MELTZER, *Jour. A. M. A.*, May 10, 1913, p. 1407.

Meltzer describes in detail two methods (the pharyngeal and masked) of rhythmically introducing air into the lungs, even in the rigid and frozen cadaver. The masked method is very simple and is more especially suited for emergency cases. The devices are inexpensive and can be combined with the Schafer method of manual and artificial respiration.

Ed.

**2799**

**Radium Holder for Larynx.** F. NEUMANN, *Monatschr. f. Ohrenh.*, No. 5, 1913, p. 715.

After thorough cocaineization this instrument can be left *in situ* as long as half an hour. Tracheotomy is unnecessary; during the endo-laryngeal radium application the patient breathes through the larynx.

Ed.

**2800**

**The Autophonoscope.** PANCONCELLI-CALZIA, *Ztschr. f. Laryngol.*, Bd. 6, Heft 3, 1913, p. 437.

The instrument is practically a Hays' pharyngoscope with an attachment for self-observation of the larynx such as John D. Wright of New York

had constructed long before the writer had perceived the idea of his instrument. Although the autophonescope is patented in Germany, its real fatherland is America. Its supposed distinguishing feature is the possibility of observing one's own vocal cords simultaneously with the examiner.

GLOGAU.

### 2801

**New Lamp for Diaphanoscopy and Endoscopy.** H. REUTER, *Muench. med. Wchnschr.*, No. 28, 1913.

This lamp was originally constructed for ophthalmological work but can be used for transilluminating the sinuses. It can be easily sterilized, consists of two dry batteries, and is especially adapted for examinations in the patient's home.

Ed.

### 2805

**New Apparatus to Teach Totally Deaf to Sing Three or Four Notes Within an Octave.** E. W. SCRIPTURE, *Trans. N. Y. Acad. of Med.*, Feb. 26, 1913.

Abstracted in *THE LARYNGOSCOPE*, Aug., 1913, p. 874.

### 2814

**Face Protector.** F. E. CUTLER.

Original contribution to *THE LARYNGOSCOPE*, Dec., 1913, p. 1151.

### 2817

**Paper Face Protector.** LEVINGER, *Muench. med. Wchnschr.*, No. 29, 1913.

This rectangular paper curtain is made to adhere to the bony part of the nose. The eyes are protected by means of glasses. This protector not only guards the physician against infection from the patient but also the patient from infections in the physician, such as acute rhinitis, etc.

Ed.

### 2818

**Apparatus for Oto-rhino-laryngological Photo-therapy.** A. NEPVEU, *Rev. hebdom. de Laryngol.*, Feb. 15, 1913, p. 182.

Both the patient and operator are supplied with spectacles for protection against the ultra-violet rays. The rays are not only used in the nose and throat but are also reflected into the larynx by means of a quartz laryngeal mirror. The rays can be used for 15 to 25 minutes at a time.

Ed.

### 2830

**Malformation of Upper Air and Digestive Tract in New Born.** ANDER-ODIAS, *Jour. de Med. de Bordeaux*, Oct. 5, 1913.

Syphilis in the mother was probably responsible for the malformation. It was first noticed when the child was unable to nurse properly. The esophagus terminated in a blind sac just above the cardia and here probably communicated with the trachea. All liquids swallowed passed into the trachea and lungs.

Ed.



**2836**

**Vaccine Therapy of Whooping Cough.** A. BAMBERGER, *Am. Jour. of Child. Dis.*, Jan., 1913, p. 33.

Abstracted in *THE LARYNGOSCOPE*, Aug., 1913, p. 869.

**2860**

**Biological Strains of Whooping Cough Bacillus.** BORDET, *Jour. of State Med.*, Sept., 1913.

If, after the original isolation of the whooping-cough bacillus on blood agar, it is gradually accustomed to grow on ordinary agar and do without blood, then the organism is no longer agglutinated by an antiserum made from bacilli still growing on blood. Similarly, the reverse holds good, the antiserum obtained from the ordinary agar cultures not agglutinating the blood-agar strain. Notwithstanding these changes in constitution, however, either antiserum will fix the complement with either of the races. In nature, the same features are shown by certain strains of dysentery bacilli, and Bordet points out that evidently here we are dealing with changes due to different environmental conditions, especially as regards food supply. The importance of these findings is obvious when we consider the reliance placed on the Widal reaction in the diagnosis of typhoid fever and the agglutination test in general. It is obvious that absence of agglutination with any specific serum does not necessarily mean that we are dealing with another species of organism—it may be only a biological race.—*Ex.*

**2861**

**Diabetes Insipidus with Tuberculosis of the Pituitary Gland.** L.

BORELLI, *Gior. della R. acad. di Med.*, Vol. 76, No. 91, 1913.

At autopsy in this tubercular, semi-blind and almost totally deaf case the brain was found to be edematous, the pia mater containing numerous tubercles, especially at the base and along the Sylvian fissures. In front and at sides of sella turcica and in the middle cerebral fossae rounded mass of newly formed tissue which raised dura mater, eroded bone and involved hypophysis. Cecum and appendix tuberculous. The author refutes the theory that irritation of the paraneuronal lobe of the pituitary gland is the main and only cause of diabetes insipidus; he feels that it is due to irritation of base of brain, particularly around third ventricle, corpora mamillaria and posterior perforated space. *Ed.*

**2881**

**Pituitrin in Operative and Spontaneous Hemorrhage of Respiratory Tract.** CITELLI, *Boll. delle Mal. dell'Orecchio*, April, 1913, and *Ztschr. f. Laryngol.*, Bd. 6, Heft 4, 1913.

Both in cases of spontaneous as well as in those of post-operative hemorrhage hemostasia was induced by injections of pituitrin. If an injection was made half an hour prior to operation the hemorrhage was greatly reduced during and after operation. *Ed.*

**2882**

**Treatment of Hemorrhage by Precipitated Blood Serum.** G. H. CLOWES and F. C. BUSCH, *N. Y. Med. Jour.*, Jan. 4, 1913.

The following conclusions are drawn: 1. Blood serum is found to be of considerable value in all conditions in which hemorrhage is due to lowered coagulability of the blood. 2. Human serum is in no way superior to that of a variety of animals. 3. Blood serum precipitated by acetone and ether is fully as effective as fresh serum, if not actually superior to it. Precipitated serum is freely soluble, and possesses the advantages of being sterile, always available, and retaining its capacity indefinitely. 4. The product obtained from horse serum appears to yield more uniformly satisfactory results than that obtained from other animals, and exerts no deleterious effect. 5. The determination of the rapidity with which sera and solutions of precipitated sera at comparative dilutions cause coagulation of citrated blood plasma affords a simple means of estimating the relative activity of the preparations in question.

Ed.

**2892**

**Connection of Sexual Apparatus with the Ear, Nose and Throat.** V. DABNEY, *N. Y. Med. Jour.*, March 15, 1913.

Abstracted in *THE LARYNGOSCOPE*, Nov., 1913, p. 1060.

**2895**

**Negro's Sign in Peripheral Facial Paralysis.** A. DE CASTRO, *Braz. Med.*, June 22, 1913, p. 237.

This phenomenon was found in every case of peripheral facial paralysis; it consists in the exaggerated position assumed by the eyeball when the patient looks up as high as he can. The eyeball on the side of the paralysis swings farther up than on the sound side; if both sides are affected the phenomenon occurs on the side more affected.

Ed.

**2907**

**Some Ethical Problems Confronting the Eye, Ear, Nose and Throat Specialists.** L. EMERSON.

Original contribution to *THE LARYNGOSCOPE*, March, 1913, p. 199.

**2910**

**Ethyl-chlorid Narcosis in Operations on the Throat, Nose and Ear.**

ALFRED FALK, *Ztschr. f. Laryngol.*, Bd. 6, Heft 1, 1913, p. 1.

Abstracted in *THE LARYNGOSCOPE*, Aug., 1913, p. 840.

**2919**

**Detection of Tubercle Bacilli in Sputum.** A. FONTES, *Brazil Med.*, June 8, 1913, p. 213.

Fontes commends the following technic as causing perfect blending with no mineral sediment and no change in the bacteria, while the resulting fluid is less dense than with other technics, permitting rapid centrifugation. To each ccm. of sputum 10 ccm. of a centri-normal so-

lution of hydrochloric acid is added and all stirred together with a glass rod until all becomes fluid; then he adds, for each ccm. of the sputum, 10 ccm. of decinormal soda solution and 10 ccm. of hydrogen dioxide. As it foams he adds alcohol, a drop at a time, until the foam disappears. If there is still a little viscosity in the fluid, he adds a few ccm. of water. If the sputum is not very thick the hydrochloric acid may be omitted. The deposit after centrifugation takes stains unusually well.—*Ex.*

### 2934

Use of Normal Horse-serum as a Means of Controlling Hemorrhage in Oto-laryngology. M. A. GOLDSTEIN.

Original contribution to THE LARYNGOSCOPE, Oct., 1913, p. 961.

### 2953

Case of Thiosinamine Poisoning. W. A. HITSCHLER, Trans. Phila. Laryngol. Soc., March 18, 1913.

Abstracted in THE LARYNGOSCOPE, Dec., 1913, p. 1176.

### 2955

Abderhalden's Method in Oto-laryngology. RUD. HOFFMAN, *Monatsschr. f. Ohrenh.*, No. 10, 1913.

Abderhalden's reaction reveals the abnormal function of any of the glands with internal secretion. The serum of the patient breaks up the tissue of the gland whose function is altered. Our knowledge of hay-fever and otosclerosis will be advanced by the application of the Abderhalden test. Thus functional changes of the thyroid, thymus, hypophysis, ovary, testes, pineal and suprarenal glands may be diagnosed and therapeutically influenced. In traumatic fissures of the pyramid bone, encroaching upon the labyrinthine capsule, the clinical picture may simulate that of otosclerosis. Abderhalden's method will differentiate this condition from real otosclerosis, as in the latter the function of one or several glands is altered. It is very difficult to diagnose histologically laryngeal carcinoma when it is combined with lues. The diagnosis is, however, established when the patient's serum breaks up carcinoma-albumen. In articular rheumatism and tuberculosis lymph-glands the patient's serum breaks up tonsillar tissue. The writer urges the specialists to apply Abderhalden's method regularly in oto-laryngology.

GLOGAU.

### 3003

Bacillus of Whooping Cough and the Lesion It Produces. F. B. MALLORY, *Am. Jour. of Public Health*, June, 1913.

In fatal cases of whooping cough Mallory observed minute organisms (bacilli) packed in large numbers between the cilia of the epithelium cells lining the trachea. They are Gram negative, non-motile, vary in shape from round to oval and act mechanically only; they interfere with the normal movements of cilia and furnish a continual irritation which excites coughing. The organism secretes a mild toxin as is indicated by

a slight inflammatory exudation, a lymphocytosis and the production of a specific antibody. Sputum from acute cases of whooping cough was inoculated into the trachea of a puppy or rabbit. When the animals were killed and the respiratory tract studied microscopically, organisms were found between the cilia in the trachea and bronchi in every way identical with those found in whooping cough. Ed.

### 3010

**Pernicious Anemia with Changes in the Mucosa.** MATTHES, *Med. Klinik*, No. 9, 1913.

Abstracted in *THE LARYNGOSCOPE*, Aug., 1913, p. 874.

### 3032

**Epinephrin in Whooping Cough.** L. C. MULAS, *Gaz. degli. Osped.*, Oct. 16, 1913, p. 1295.

This is a report on fifteen cases; the symptoms were markedly relieved and cure was usually obtained in two weeks. No bad effects followed nor were there any recurrences. One case was complicated by malaria and in another there were signs of tuberculosis. Ed.

### 3034

**Lymphatic Leucemia.** B. MUNDAY, *Trans. N. Y. Acad. of Med.*, Dec. 17, 1913.

Abstracted in *THE LARYNGOSCOPE*, Dec., 1913, p. 68.

### 3050

**Surgery of the Thymus Gland.** C. A. PARKER, *Am. Jour. Dis. of Children*, Feb., 1913, p. 89.

Abstracted in *THE LARYNGOSCOPE*, June, 1913, p. 89.

### 3068

**Colds and Their Relation to the Physics of the Atmosphere.** C. M. RICHTER, *Med. Rec.*, Dec. 6, 1913, p. 1014.

Richter reaches the following conclusions: Acute coryza, commonly called a "cold" depends for its development primarily on an excess of moisture in the air we inhale. It develops usually during the cyclonic weather conditions, especially when preceded by very dry weather. The excessive and more or less continuous nasal secretion at the beginning of an acute coryza relieves the respiratory apparatus from the otherwise damaging effect of an overcharge of moisture. The nasal mucosa of the child or the hyperesthetic one is usually affected. The "running of the nose" constitutes in part a physiological vaso-motor action analogous to the perspiration of the outer skin which sets in whenever air-temperature and the relative humidity transgresses certain limits and which forces thereby better conditions for evaporation. Later microbism becomes active on the mucosa only after these air-conditions have favored its development for some time. Microbism is very rarely the primary cause of an active coryza. Ed.

**3087**

**Results With Neo-salvarsan in Luetic Affections of the Upper Air Passages.** SCHLESINGER, *Ztschr. f. Laryngol.*, Bd. 6, Heft 3, 1913, p. 375.

In four injections 2.4 to 3.0 of the neo-salvarsan was given. All of the fifty-two injections on twenty patients were satisfactory and without complications. Neo-salvarsan is safe and effective though its action is not as prompt as that of "606."

**3105**

**Conservative Treatment of Scarlatinal Abscess.** SOERENSEN, *Therap. Monatsh.*, Aug., 1913.

In fifty-three of the 4,000 scarlet fever patients observed (1910-1911) an abscess developed near the ear. Treatment: incision down to bone, drainage and rinsing out. Later, on three of these cases the radical mastoid operation was performed; one died. The author urges conservative treatment in these cases. Ed.

**3106**

**Histological Differential Diagnosis Between Syphilis and Tuberculosis of the Upper Air Passages.** A. SOLGER, *Ztschr. f. Ohrenh.*, Bd. 69, Heft 2, 1913, p. 137.

The characteristics of syphilis are: 1. Preponderance of granulation and plasma cells. 2. Abundant fibroblasts and fibrous connective tissue. 3. Diffuse and extensive caseation. 4. Changes in the vessels. The latter is the most reliable. The elastic fibers must be stained by the Weigert method. In only two of the twenty-five cases examined by the author was the diagnosis doubtful. Ed.

**3107**

**Cosmetic Correction of Facial Paralysis Through Facial Plastic.** A. E. STEIN, *Muench med. Wchnschr.*, No. 25, 1913, p. 1370.

In a leutic case the author succeeded in obtaining a very good cosmetic result by means of free facial plastic. He details his operation and discusses other operations in vogue. Ed.

**3118**

**Presidential Address.** ST. C. THOMSON, *Trans. XV. Intern. Congress of Med.*, 1913.

Abstracted in *THE LARYNGOSCOPE*, Oct., 1913, p. 1039.

**3122**

**Classification of Tumors of the Pituitary Body.** L. VON BONIN, *Brit. Med. Jour.*, May 3, 1913, p. 934.

A new scheme of classification based on the principle of histogenesis is given by Von Bonin. I. Heterotopic Tumors.—1. Tumors of the cranio-pharyngeal duct; 2. Teratomas. II. Homotopic Tumors.—1. Epithelial tumors: (a) From anterior lobe,—chromophile, chromophobe, combined, cubic cell, adenoma round cell, adenoma carcinoma, (b) From pars intermedia; 2. Tumors developed from connective tissue: (a) From anterior lobe and pars intermedia—fibroma and sarcoma; (b) From posterior lobe, glioma; 3. Mixed tumors, fibro-adenoma.

**3123**

**Action of Hypophyses Extract on the Kidneys.** R. VON DEN VELDEN, *Berl. klin. Wchnschr.*, Nov. 10, 1913.

From experimental and clinical researches the author concludes that hypophysis extract depresses the kidney functioning. This very likely explains its beneficial effect in diabetes insipidus. Ed.

**3135**

**Whooping Cough.** S. M. WILSON, *N. Y. Med. Jour.*, April 19, 1913.

Vaccine in doses of twenty to forty million bacteria was used in a series of twenty-four children. The paroxysms diminished in frequency and severity; the shortest duration of treatment was nine days, and the longest forty-eight days, and the average twenty-three days. Ed.

**3138**

**Report of Committee Appointed to Consider Best Methods in the Teaching of Oto-laryngology.** J. G. WISHART, C. W. RICHARDSON, and S. MACCUEEN SMITH.

Original contribution to *THE LARYNGOSCOPE*, Oct., 1913, p. 1010.

**3141**

**Direct Radio-therapy of Nerve Roots in Treatment of Neuralgia.** ZIMMERN, COTTENOT and DARIAUX, *Presse med.*, June 25, 1913.

The rays are applied to the nerve-root at the point where it pierces the bone. Direct exposure has been found very satisfactory in sciatica, neuralgia and neuritis of the brachial plexus and in trigeminal neuralgia. Radicular radio-therapy not only has a remarkable action in relieving pain but also in inducing repair. The benefit is due to relief of pressure at the points where the nerve pierces the bone. Ed.

**3142**

**Hemorrhage from the Air Passages.** A. ZOGRAFIDES, *Monatschr. f. Ohrenh.* Heft 2, 1913, p. 385.

Abstracted in *THE LARYNGOSCOPE*, Feb., 1914, p. 127.

**3143**

**Asthma and Its Radical Treatment.** J. ADAMS, PAUL HOEBER, N. Y., 1913.  
To be reviewed in a subsequent issue of *THE LARYNGOSCOPE*.

**3144**

**Bacterial Diseases of Respiration and Vaccines in Their Treatment.** R. W. ALLEN. Blakiston's Son & Co., Philadelphia, 1913.  
Reviewed in *THE LARYNGOSCOPE*, Dec., 1913, p. 1180.

**3145**

**Manual of Otology.** G. BACON. Lea and Febiger, Phila., 1913.  
Reviewed in *THE LARYNGOSCOPE*, Dec., 1913, p. 1183.

**3148**

**Stammering and Cognate Defects and Speech.** C. S. BLUEMMEL, G. E. Steckert and Co., N. Y., 1913.  
Reviewed in *THE LARYNGOSCOPE*, Dec., 1913, p. 1182.



**3152**

French Otology During the Last Fifty Years. C. CHAUVEAU. J. B. Bailliere et fils, Paris, 1913.

Reviewed in THE LARYNGOSCOPE, Dec., 1913, p. 1179.

**3157**

Logopedia for Physicians, Teachers and Students. E. FROESCHELS. Franz Deuticke, Leipzig, 1913.

Reviewed in THE LARYNGOSCOPE, Dec., 1913, p. 1181.

**3158**

Examination of Upper Air Passages. P. H. GERBER. Curt Kabitzsch, Wuerzburg, 1913.

Reviewed in THE LARYNGOSCOPE, Dec., 1913, p. 1183.

**3160**

Operations on the Ear. B. HEINE. S. Karger, Berlin, 1913.

Reviewed in THE LARYNGOSCOPE, Dec., 1913, p. 1179.

**3163**

Vicious Circles in Diseases. J. B. HURRY. J. and A. Churchill, London, 1913.

Reviewed in THE LARYNGOSCOPE, Nov., 1913, p. 1120.

**3164**

Voice-fag. Phonasthenia. R. IMHOFFER. Curt Kabitzsch, Wuerzburg, 1913.

Reviewed in THE LARYNGOSCOPE, Dec., 1913, p. 1180.

**3166**

Hand-book of the Special Surgery of the Ear and Upper Air Tract. L. KATZ; H. PREYSING; and F. BLUMENFELD.

Reviewed in THE LARYNGOSCOPE, Jan. and Dec., 1913, p. 78 and 1178.

**3167**

Diseases of the Ear. P. D. KERRISON. J. B. Lippincott, Philadelphia, 1913.

Reviewed in THE LARYNGOSCOPE, Nov., 1913, p. 1120.

**3170**

Hand-book of Diseases of the Ear for the Use of Students and Practitioners. R. LAKE. Wm. Wood and Co., New York, 1913.

Reviewed in THE LARYNGOSCOPE, Nov., 1913, p. 1120.

**3174**

Chronic Inflammatory Stenosis of the Cardiac Region of the Esophagus.

G. LIEBAULT, Imprimeries Gounouilhon, Bordeaux, 1913.

Reviewed in THE LARYNGOSCOPE, Nov., 1913, p. 960.

**3176**

Superior Laryngeal Nerve. G. LIEBAULT and R. CELLÉS, *Feret and Fils*, Ed.-Bordeaux, 1913.

Reviewed in THE LARYNGOSCOPE, Nov., 1913, p. 960.

**3178**

**Causes and Prevention of Deafness.** J. K. LOVE. Nat. Bureau for Promoting Gen. Welfare of Deaf, London, 1913.

Reviewed in THE LARYNGOSCOPE, Dec., 1913, p. 1180.

**3179**

**Labyrinth Papers.** G. W. MACKENZIE. Examiner Printing House, Lancaster, 1913.

Reviewed in THE LARYNGOSCOPE, Dec., 1913, p. 1179.

**3182**

**Lang's German-English Dictionary of Terms Used in Medicine and the Allied Sciences.** MILTON K. MEYERS. P. Blakiston's Son & Co., 1913.

Reviewed in THE LARYNGOSCOPE, Dec., 1913, p. 1184.

**3184**

**Acoustics and Mechanics of the Voice.** MUSEHOLD. Julius Springer, Berlin, 1913.

Reviewed in THE LARYNGOSCOPE, March, 1914, p. 240.

**3187**

**Relation of the Lacrimal Organs to the Nose and Nasal Accessory Sinuses.** A. ONODI. Wm. Wood and Co., N. Y., 1913.

Reviewed in THE LARYNGOSCOPE, Dec., 1913, p. 1183.

**3188**

**Diseases of the Nose, Throat and Ear for the Use of Students and General Practitioners.** F. R. PACKARD. J. B. Lippincott Co., Philadelphia, 1913.

Reviewed in THE LARYNGOSCOPE, Nov., 1913, p. 1119.

**3190**

**Atlas on Development of Nose and Palate in Man.** K. PETER. Gustav Fischer, Jena, 1913.

Reviewed in THE LARYNGOSCOPE, Dec., 1913, p. 1182.

**3191**

**Diseases of the Ear, Nose and Throat, Medical and Surgical.** W. C. PHILLIPS. F. A. Davis Co., Philadelphia, 1913.

**3192**

**History of Otology.** A. POLITZER. Ferdinand Enke, Stuttgart, 1913.

Reviewed in THE LARYNGOSCOPE, Nov., 1913, p. 1117.

**3194**

**Catarrhal and Suppurative Diseases of the Accessory Sinuses of the Nose.** R. H. SKILLERN. J. B. Lippincott Co., 1913.

Reviewed in THE LARYNGOSCOPE, March, 1914, p. 240.

**3197**

**Suppuration of the Labyrinth.** W. UFFENORDE. Curt Kabitzsch, Wuerzburg, 1913.

Reviewed in THE LARYNGOSCOPE, Dec., 1913, p. 1179.

